

# Annual Report 2020

# Table of Contents

<b>COLLEGE OF AGRICULTURE AND VETERINARY SCIENCES.....</b>	<b>4</b>
<i>Principals Message</i> .....	4
Department of Agricultural Economics.....	6
Department of Animal Production.....	9
Department of Food Science, Nutrition and Technology.....	13
Department of Land Resources and Management and Agricultural Technology .....	22
Department of Plant Science and Crop Protection.....	36
Department of Veterinary Anatomy and Physiology .....	49
Wangari Maathai Institute for Peace and Environmental Studies .....	51
<b>COLLEGE ARCHITECTURE AND ENGINEERING .....</b>	<b>59</b>
School of Arts and Design.....	59
School of the Built Environment .....	64
Department of Architecture and Building Science .....	64
School of Engineering .....	69
Department of Electrical and Information Engineering.....	69
Department of Petroleum and Chemical Engineering.....	73
<b>COLLEGE OF BIOLOGICAL AND PHYSICAL SCIENCES.....</b>	<b>75</b>
School of Biological Sciences .....	75
School of Computing and Informatics .....	83
School of Physical Sciences.....	91
Department of Chemistry.....	91
Institute for Climate Change and Adaptation .....	105
<b>COLLEGE OF EDUCATION AND EXTERNAL STUDIES .....</b>	<b>108</b>
School of Education and External Studies.....	108
Department of Educational Administration and Planning .....	114

<b>COLLEGE OF HEALTH SCIENCES .....</b>	<b>116</b>
School of Dental Sciences.....	116
School of Medicine.....	123
Department of Psychiatry.....	129
School of Nursing Sciences .....	140
School of Pharmacy .....	145
Department of Pharmaceutics and Pharmacy Practice .....	145
School of Public Health.....	152
East African Kidney Institute .....	155
KAVI–Institute of Clinical Research.....	158
Institute of Tropical and Infectious Diseases (UNITID) .....	166
 <b>COLLEGE OF HUMANITIES AND SOCIAL SCIENCES .....</b>	 <b>170</b>
Faculty of Arts .....	170
Department of Communication Skills and Studies.....	187
Department of History and Archaeology .....	190
Department of Linguistics and Languages .....	191
Sub-Department of French .....	196
Department of Political Science and Public Administration .....	198
Department of Psychology.....	205
School of Business .....	207
School of Economics.....	215
School of Journalism and Mass Communication .....	220
African Women’s Studies Centre .....	223
Centre for Advanced Studies in Environmental Law and Policy .....	228
Centre for Translation and Interpretation.....	234
Institute of Anthropology, Gender and African Studies.....	237
Institute of Diplomacy and International Studies .....	242
Population Studies and Research Institute .....	246

# College of Agriculture and Veterinary Sciences

## Principals Message



The College of Agriculture and Veterinary Sciences, commonly referred to as CAVS is one of the six Colleges that make up the University of Nairobi. CAVS has continued to experience growth in various facets as it strives to fulfill its mandate of training human resource in the fields of agriculture, veterinary sciences and environmental studies. Apart from the professional aspect, we also offer all-round training that includes, but not limited to, mentorship and leadership as well as guidance and counseling, with the aim of producing graduates who will be responsible global citizens with the capacity to make positive contributions to society.

CAVS has played its strategic role in helping to realize national and international policy aspirations such as Kenya's Vision 2030 and the Big 4 Agenda, and the Sustainable Development Goals (SDGs). In this respect, the College has pioneered the breeding of new bean varieties, established the Seed Enterprise Management Institute (SEMI), established facilities for training on reducing post-harvest losses and offered higher training in veterinary sciences and environmental sustainability initiatives. All of these are crucial in, *inter alia*, alleviating food security challenges, reducing levels of excruciating poverty and promoting sustainable livelihoods. Our contribution to reducing impacts of the pangs of hunger allows people to engage in productive endeavours at the personal and national levels.

Our academic curricula are continuously and regularly reviewed in response to contemporary global trends, and because of this, the training that our graduates receive has enabled them to excel in diverse fields in different parts of the world. In this respect, several curricula were reviewed during the year.

CAVS does not operate in a vacuum but is fully involved in outreach activities that include corporate social responsibility. Members of staff and students regularly go out to meet farmers

to, among other things, train them in various fields and creating awareness on the latest trends in agriculture, veterinary and environmental issues, and vaccinating livestock. The students and staff in return also share experiential knowledge from the practitioners.

Following the Government of Kenya directive in early 2020 that all educational institutions should have at least 10% of their land under trees, CAVS was given the task of undertaking this responsibility on behalf of the University of Nairobi. As a first step towards this objective, and in liaison with our stakeholders, we planted 3,065 tree seedlings at the Veterinary Farm on November 20, 2020. Since then, a number of corporate organizations and the Indian High Commission in Kenya have expressed interest in partnering with us towards greening the University as part of national, if not global efforts, in environmental conservation and protection.

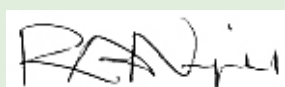
Despite our achievements, 2020 was a difficult year across the world mainly due to the outbreak of the COVID-19 pandemic and our College was not spared the impacts. However, due to the tenacity of members of staff and students, and the unwavering support of University Management, we managed to graduate 820 students, after successfully completing many of the programmes

on-line. We also held several webinars that attracted participants with different backgrounds from many parts of the world.

I therefore wish to thank all the staff and students, and all our partners and collaborators who stood with us during the difficult moments. Each one of us has a responsibility toward good health; I continue to urge all of you to adhere to the laid down protocols availed by the Ministry of Health, and tirelessly offer the College your invaluable support.

We appreciate the Government of Kenya for the continued support, this being a public institution. Our quest for world-class excellence is solid as we embrace measures in place to ensure sustainable and maximum utilization of our resources.

Once again, I thank all our stakeholders, and urge you not to waver in your support as we forge forward into 2021.

A handwritten signature in black ink, appearing to read 'R. Nyikal', enclosed in a white rectangular box.

**Prof. Rose Nyikal Ag. Principal,  
College of Agriculture & Veterinary Sciences**

# Department of Agricultural Economics

## Introduction

The mandate of the Department of Agricultural Economics is Teaching and Learning, Research and Innovation, Consultancy and Community Service. It also provides project and supervision work, Youth internship, and Mentorship services

Its Vision is to be an international centre of excellence in agricultural and applied economics training, research and extension, and outreach for the realization of sustainable livelihoods for all.

Whereas the Mission is to be an international centre of excellence in agricultural and applied economics training, research and extension, and outreach for the realization of sustainable livelihoods for all.

The Department participates in the Collaborative Agricultural and Applied Economics MSc programme that is partially funded by Africa Economic Research Consortium (AERC) and it has been performing exceptionally very well in the third semester at the Shared Facility for Specialization and Electives (SFSE), University of Pretoria. For instance, with the exemplary performance of our students, University of Nairobi was ranked Position 1 overall out of eight (8) major universities in Eastern and Southern Africa and scored an average of 75.5%. This is a repeat of our performance and ranking in 2017 when the University also produced the top three students at the SFSE. In 2019 the Department also produced the second top student. It is also important to note that 8 out of 11 students (73%) scored over 70%, which has not been achieved in the past years.

## Programmes Offered

- i) Bachelor of Science in Agricultural Education and Extension
- ii) Bachelor of Science in Agribusiness Management
- iii) Bachelor of Science (Economics Major)
- iv) Master of Science in Agricultural and Applied Economics
- v) Master of Science in Agricultural Information and Communication Management
- vi) PhD in Agricultural Economics
- vii) PhD in Agricultural and Applied Economics
- viii) PhD in Agricultural Information and Communication Management

## Strategic Issues

The Department is guided by the following Strategic Objectives:

- i) To manage the Departmental resources efficiently;
- ii) To grow the Department resource base and enhance productivity;
- iii) To produce quality and holistic graduates in agricultural and applied economics including agribusiness management, agricultural extension and rural development;
- iv) To contribute to the development of society through creation, storage, application and dissemination of knowledge on agricultural and applied economics;
- v) To enhance the competitiveness and image of the Department as a centre of excellence in agricultural and applied economics training and research
- vi) To enhance strategic partnership and collaborations.

## Major Achievements in the Year 2020

### Student Numbers

Programme	No. of Students
Bachelor of Science in Agricultural Education and Extension	356
Bachelor of Science in Agribusiness Management	313
Master of Science in Agricultural and Applied Economics	175
Master of Science in Agricultural Information and Communication Management	40
PhD. in Agricultural Economics	13
PhD in Agricultural and Applied Economics	20
PhD in Agricultural Information and Communication Management	8

### International Students

There were 41 students under this category from across African continent e.g. Liberia Malawi, Ghana, Nigeria, Botswana, Rwanda, Burundi, Tanzania, Uganda and South Sudan. The number increased by 5.6% from that of last year

The department was actively involved in the following research activities:

- i) Analysis of the Socio-Economic Contribution of Donkeys Ownership and Use to Household Livelihoods in Kiambu County
- ii) Impact of Rural and Community Bank Credit Access on Technical Efficiency of Smallholder Cassava Farmers in Fanteakwa District of Ghana
- iii) Assessment of Livestock Farmers' Preferences for Integration of Community-Owned Resource Persons and Interrelationships in Animal Trypanosomiasis Management Methods in Kwale County, Kenya
- iv) Assessment of the Effectiveness of Communication Channels Used in the Dissemination of Reproductive Technologies in Dairy Cattle in Kangema, Murang'a County
- v) Participation in Contract Farming and its Effects on Technical Efficiency and Income of Vegetable Farmers in Western Kenya
- vi) Comparative gendered assessment of productivity, technical efficiency and technology gaps of sorghum plots in three Districts of Uganda
- vii) An economic evaluation of the role of land and livestock dynamics in livelihood diversification in Baringo County, Kenya
- viii) Effects of Integrated Nutrition Education Approaches of the Production and Consumption of Orange-Fleshed Sweet potatoes in Homa Bay County, Kenya
- ix) An assessment of smallholder livestock keepers' willingness-to-pay for cattle insurance attributes in Botswana: the case of Central District
- x) An Economic Assessment of the Factors That Influence Smallholder Farmer Participation in Export Markets as a Case of High Value Mango Markets in Southern Ghana

## Corporate and Community Outreach Activities

The Department was involved in tree planting and community projects such schools in a number of countries. Some staff members are in the school boards (BOMs) and other are involved in mentorship activities of students and pupils.

## Staff Portfolio

Cadre	No. Male	No. Female	Total No.	Number of PhD Holders
Full Professors	3	0	3	3
Associate Professors	2	1	2	2
Senior Lecturers	2	2	4	4
Lecturers	5	1	6	6
Assistant Lecturers/Tutorial Fellows	2	1	3	1

## Projections

- i) Increased staff motivation and commitment
- ii) Improved quality and delivery of teaching and learning programmes
- iii) Improved employability of graduates in diversified fields
- iv) Increased internationalization of the Department
- v) Increased number of graduate students in diverse fields
- vi) Increased visibility and uptake of Department research output
- vii) Enhanced student satisfaction
- viii) Improved staff satisfaction
- ix) Increased staff productivity

## Any Other Pertinent Information/Issue in the Year 2020

The Department participated in a workshop organized AERC at Egerton University whose main purpose is to disseminate research findings on the area of technology adoption, gender and trade for rural development. The Department had three students presenting workshop papers in this workshop.



# Department of Animal Production

## Introduction

The Department of Animal Production is the oldest departments of the University of Nairobi. Located in Upper Kabete Campus, it was part of the then Royal College of East Africa, later University of East Africa, Makerere in 1962.

The Department of Animal Production belongs to both faculty of Veterinary Medicine and Faculty of Agriculture. The Department has participated in the production of several veterinarians, agriculture graduates, food technologists, range managers, agricultural engineers in addition to several Masters of Science in Animal Nutrition, Animal Genetics and Breeding and Management of Livestock production systems as well as many PhDs in specific aspects of Animal science Academic programmes. The Department offers courses in animal production to undergraduates of the faculties of Agriculture and Veterinary Medicine. The year 2020/2021 has seen the department undertake has been very good.

## Programmes Offered

- i) Bachelor of Veterinary Medicine
- ii) Bachelor of Science in Agriculture (Animal Science Major)
- iii) BSc. (Fisheries and Aquaculture Management)
- iv) BSc.(Wildlife Conservation Management)
- v) MSc. (Animal Genetics and Breeding)
- vi) MSc. (Animal Nutrition and Feed Science)
- vii) MSc. (Livestock Production Systems)
- viii) PhD. (Various fields in Animal Sciences)

## International Students

We have international eight (8) students pursuing MSc. in Livestock Production Systems drawn from Somalia, DR Congo, and Southern Sudan and one student from DR Congo pursuing PhD in Animal Genetics and Breeding.

## Number of Graduates

### Postgraduate Students who Graduated in 2020:

MSc. Animal Nutrition and Feed Science	- 1
MSc Animal Genetics and Breeding	- 2
MSc Livestock Production Systems	- 2
PhD animal Genetics and Breeding	- 1

### Undergraduate Students who Graduated in 2020:

Bachelor of Science in Fisheries and Aquaculture Management	- 27
Bachelor of Science in Agriculture (Animal Science Major)	- 14

## Collaborations

Currently the department is involved in among other collaborations the following:

Project	Collaborators
Effect of feeding Black Soldier Fly Larvae to Broilers and Layers.	Kalro ICIPE
Climate and Change Adaptation for Sustainable Beef Production in Tana River County.	Kalro KCSAP
Use of Mushroom Substrate as Animal Feed	Kalro KCSAP
Adoption and Impact of Sahiwal Dairy Cattle in Kajiado and West Pokot	Kalro KCSAP
Scaling up Dorper Sheep Production through Climate – Smart Targeted Breeding, Heath Management and Feeding Strategies in Kenya	Kalro KCSAP
Environment Project on Wildlife Conservation; Alabama A&M University-Fulbright Project on Agriculture Extension.	KWS UN



Layers in the Poultry Unit



Poultry Hatchery



Egg Production

## Publications for the Year

### Journals Produced July 2020/2021

1. Trends and Constraints in Guava (*Psidium Guajava* L.) Production, Utilization, Processing and Preservation in Kenya by Duke Gekonge Omayio, George O Abong', Michael W Okoth, Charles K Gachuiiri, Agnes W. Mwang'ombe Publication date 2020/7/9. *International Journal of Fruit Science*, Pages 1-12. Taylor & Francis
2. Production Systems, Genetic Diversity and Genes Associated with Prolificacy and Milk Production in Indigenous Goats of Sub-Saharan Africa: A Review by Simon Patrick Baenyi, Joseph Owino Junga, Christian Keambou Tiambo, Ahadi Bwihangane Birindwa, Katcho Karume, Getinet Mekuriaw Tarekegn, Joel Winyo Ochieng. *Publication: date 2020/8/15. Open Journal of Animal Sciences* Volume 10, Issue 4, Pages 735-749. Scientific Research Publishing
3. Urea-molasses Pre-treatment to Enhance Nitrogen Gain, Digestibility, Intake and Milk Yield from Crop-Residues in Smallholder Dairy Farms in Eastern Africa by Ongadi Patrick Mudavadi, Mpolya Abraham Emmanuel, Lukuyu Adubwa Bernard, Haule Alphonse, David Peter Ngunga, Gachuiiri Charles, Muyekho Francis Namasake, Endalkachew Wolde-meskel. 2020/8/27. *Asian Journal of Research in Animal and Veterinary Sciences*, Pages 28-43
4. Effects of Season Variation on Water, Feed, Milk Yield and Reproductive Performance of Dairy Cows in Smallholder Farms in Eastern Africa by Mudavadi Patrick Ongadi, Emmanuel A Mpolya, Charles Gachuiiri, Francis Namasake Muyekho, Adubwa Bernar Lukuyu. 2020/8/28. *Journal of Agriculture and Ecology Research International*
5. Assessment of methods practiced in the disposal of solid waste in Eastleigh Nairobi County, Kenya [J] by Joseph Muiruri, Raphael Wahome, Kiemo Karatu. 2020/10/16. *AIMS Environmental Science*; Volume 7, Issue 5; Pages 434-448. Aims Press
6. Co-occurrence and Levels of Mycotoxins in Fish Feeds in Kenya by Evalyn Wanjiru Mwihi, Jan Ludvig Lyche, Paul Gichohi Mbuthia, Lada Ivanova, Silvio Uhlig, James K Gathumbi, Joyce G Maina, Eric Emali Eshitera, Gunnar Sundstøl Eriksen. 2020/10. *Toxins*. Volume 12, Issue 10, Pages 627. Multidisciplinary Digital Publishing Institute
7. Nutritive value of selected preferred forage species by lactating camels in the peri-urban area of Marsabit town, Kenya by J.I Sagala, C.K Gachuiiri, S.G Kuria, MM Wanyoike. 2020. *Indian Journal of Animal Nutrition*; Volume 37 Issue 3 Pages 18-226. *Animal Nutrition Society of India*
8. Rabbit production practices in Kiambu County, Kenya by Abraham Kipchumba Cherwon, Margaret Mwihiaki Wanyoike, Charles Karuku Gachuiiri. 2020/10/31. *International Journal of Livestock Production*. Volume 11, Issue 4, Pages 114-121. Academic Journals
9. Analysis of the benefits and production challenges of working donkeys in smallholder farming systems in Kenya by Mary Gichure, Joshua Onono, Raphael Wahome, Peter Gathura. 2020/11/1. *Veterinary World*. Volume 13, Issue 11
10. Whole Genome Sequence Analysis of Porcine Astroviruses Reveals Novel Genetically Diverse Strains Circulating in East African Smallholder Pig Farms by Joshua O Amimo, Eunice M Machuka, Edward O Abworo, Anastasia N Vlasova, Roger Pelle. 2020/11. *Viruses* Volume 12, Issue 11, Pages 1262. *Multidisciplinary Digital Publishing Institute*.
11. Mining impact on communities' livelihoods: A case study of Taita Taveta County, Kenya by Irene Mwakesi, Raphael Wahome, Daniel Ichang'i. 2020. *AIMS Environmental Science*; Volume 7, Issue 3; Pages 286-301.
12. Evaluation of Dairy Cattle Productivity in Smallholder Farms in Nyeri County, Kenya by Peter Aweer Duot Ajak, Charles K Gachuiiri, Margaret MM Wanyoike. 2020/12/11. *East African Journal of Science, Technology and Innovation*. Volume 2, Issue 1.
13. A Comparison of Two DNA Metagenomic Bioinformatic Pipelines while evaluating the Microbial Diversity in feces of Tanzanian smallholder dairy cattle by Felix M Kibegwa, Rawlynce C Bett, Charles K Gachuiiri, Francesca Stomeo, Fidalis D Mujibi. 2020/4/23. *BioMed research international*; Volume 2020. Hindawi.

## Staff Portfolio

### Academic Staff

Designation	No. in Position
Professor	1
Associate professor	4
Senior lecturer	1
Lecturer	3
Ass. Lecturer	0
Tutorial fellows	2
<b>Total</b>	<b>11</b>

### Non-Academic Staff

Designation	No. in Position
Principal Technologist	1
Chief Technologist	1
Senior Technologist DEF	4
Secretary	1
Technologist ABC	4
Assistant Technologist Grade III	2
Animal Attendant	3
Cleaner	3
<b>Total</b>	<b>19</b>

## National Development

In addition to training of graduates in various aspects of nation building, the Department actively participates in the animal industry. The key areas of involvement include:

### Formulation of Animal Feeds and Feeding Standards

- Bull evaluation for the Kenya Animal Genetic Resources Centre (KAGRC) at Lower Kabete and Agricultural Development Cooperation (ADC) Semen Production Centre in Kitale.
- Training of livestock extension officers.
- Participation in various national committees that formulates policies in improvement of livestock industry
- Collaborative research in Animal

## Corporate Social Responsibility

The department continues to execute its corporate responsibility in various areas of Animal Production as exemplified by our role in the society.

## Consultancies

The Department has expertise in all areas of livestock enterprises and many of the staff has veterinary medicine and agriculture backgrounds. It also enjoys good relations with departments in faculties of Agriculture and Veterinary Medicine. It is, therefore, well placed to consult in all areas of livestock production. Past consultancies were in the following areas:

### Establishment of:

- Commercial Animal Feed Factories
- Commercial Poultry Production Systems
- Feed Formulation
- Livestock Housing Structures
- Aquaculture and Mariculture Production
- Commercial Poultry Hatcheries
- Commercial Dairy Production Systems
- Livestock Farm Layout
- Apiculture and other Emerging Livestock

In addition, we offer the following services:

- Livestock enterprise and production system advisory services
- Evaluation of genetic worth of livestock species
- Genetic fingerprinting
- Establishment of herd breeding programmes
- Planning of animal genetic improvement programmes
- Short term training on specific topics in Animal Science

## Department of Food Science, Nutrition and Technology

### Introduction

Department of Food Science, Nutrition and Technology (DFSNT) was established in 1973 as the Department of Food Science and Technology. This was later on changed to Department of Food Technology and Nutrition prior conversion to its current name in 2005. At the time of establishment, the department only offered Bachelor of Science Degree in Food Science and Technology. The first batch of students graduated in BSc. Food Science and Technology (FST) in 1976. The first Master of Science Degree programme, FST, was developed between 1982 and 1984 after which the first batch of students were admitted in 1984. In this same year, the MSc. Programme in Applied Human Nutrition curriculum was developed and the first lot of students were admitted in 1985. The mounting of the MSc Degree in ANH led to the renaming of the department to Food Technology and Nutrition.

The Department administrative structures include Sections units headed by an academic member of staff although the pilot plant is headed by a manager, a Technologist. The five sections include:

- i) Food Microbiology
- ii) Food Chemistry
- iii) Food safety and quality
- iv) Applied Human Nutrition
- v) Pilot Plant

### Programmes Offered

- i) DFSNT currently offers nine-degree programmes:
- ii) Bachelor of Science in Food Science and Technology (BSC-FST)
- iii) Bachelor of Science in Food Nutrition and Dietetics (BSC-FND)
- iv) Postgraduate Diploma in Food Safety and Quality (PGD-FSQ)
- v) Master of Science in Food Safety and Quality (MSC-FSQ)
- vi) Master of Science in Applied Human Nutrition (MSC-AHN)
- vii) Master of Science in Food Science and Technology (MSC-FST)
- viii) Doctor of Philosophy in Food Safety and Quality (PHD-FSQ)
- ix) Doctor of Philosophy in Applied Human Nutrition (PHD-AHN)
- x) Doctor of Philosophy in Food Science and Technology (PHD-FST)

## Students Enrolment

### i) Undergraduates

Food Nutrition and Dietetics	Food Science and Technology	Total
31	39	70

### ii) Postgraduates

#### b) Master's Programmes

Food Safety and Quality	Food Science & Technology	Applied Human Nutrition	Total
9	4	2	15

#### c) PhD Programme

The Department offers PhD in FSQ, FST and AHN. The total number of enrolled PhD students was 2.

#### d) International Students Component

The Department has seven (7) international students undertaking Msc. in Food Science and Technology

## Number of Graduates Year 2020

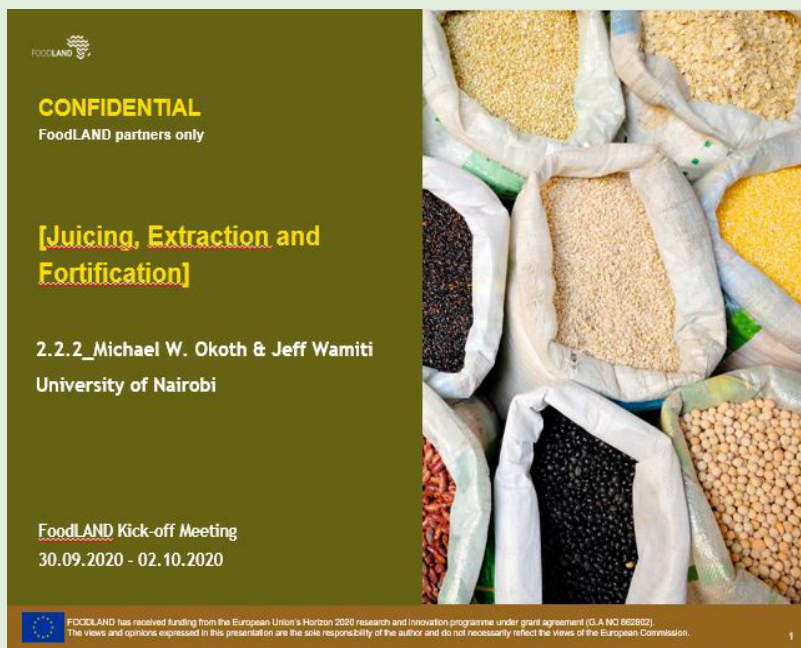
December, 2020	Count
BSc. Food Science and Technology (FST)	33
BSc. Food Nutrition and Dietetics (FND)	32
MSc. Food Science and Technology(FST)	1
MSc. Food Safety and Quality (FSQ)	10
MSc. Applied Human Nutrition (AHN)	11
PhD. Applied Human Nutrition (AHN)	1
PhD. Food Safety and Quality	1
PhD. Food Science and Technology	1
<b>Total</b>	<b>90</b>

## Research Activities

**Title:** *FOOD and Local, Agricultural, and Nutritional Diversity (FoodLAND)* **Scientific Area:** Food security.  
**Discipline theme:** Food Science and Technology, Human nutrition, Economics, Agronomy. **Collaborating Institutions:** University of Bologna, Italy. **Team:** Prof Wambui Kogi-Makau, Prof Michael Okoth, Dr Sophia Ngala, Dr Jeff Wamiti, Dr Lucy Njue, and Dr Dasel Kaindi

## International Links and Collaboration

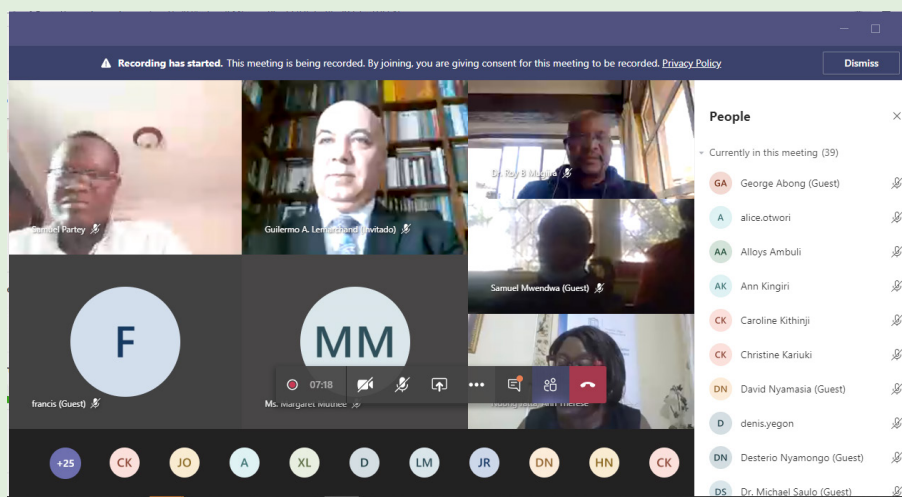
### 1. The FOOD and Local, Agricultural, and Nutritional Diversity (FoodLAND)



The FOOD and Local, Agricultural, and Nutritional Diversity (FoodLAND) project aims at enhancing the diversity of food production and consumption in six African countries displaying different stages of the nutrition transition.

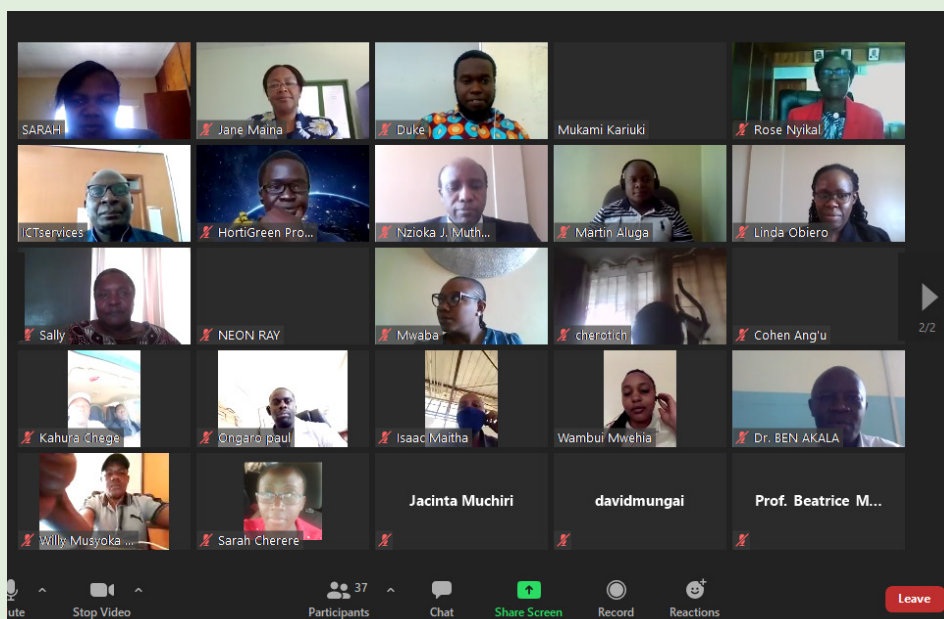
### 2. Gospin Training October, Virtual

DFSNT faculty and PhD students participated in the Go-spin training program held virtually in October 2020.



THE UNESCO's Global Observatory of Science, Technology and Innovation Policy Instruments (GO-SPIN) programme designed to expose — through the rigorous application of an assessment lens — usable insights about science, engineering, technology and innovation (SETI) policies and their context launched a week-long training in Kenya that saw DFSNT faculty and students participate in this critical workshop. The purpose of this programme is to help UNESCO Member States to create local capacity for analysing SETI evidence-based policies in order to detect gaps and introduce reforms and upgrades to their national innovation systems and its governance.

### 3. E-Conference on SCP Practices in the Horticultural Sector, 5-7 October 2020



The conference brought together micro, small and medium enterprises currently under Hortigreen project, academia, NGO and other stakeholders in horticulture and related food sub-sectors. The key sub-themes that were tackled included: green financing opportunities, sustainable water and energy management, certification, eco-labelling and current innovation, consumer and civil mobilization, sustainable consumption and practices and zero waste economy. This conference was graced by among others, the dean faculty of agriculture, Director Wangari Maathai Institute and Principal of the College of Agriculture and Veterinary Science

DFSNT Participants: Prof. M.W. Okoth, Dr. G.O. Abong', Mr. D. Gekonge, Mr. J. Ouma

### Publications for 2020

AUTHOR	TITLE	JOURNAL	PERIOD*
George Ooko Abong, Jackline Akinyi Ogolla, Michael Wandayi Okoth, Bruno De Meulenaer, Jackson Ntongai Kabira, Paul Karanja, Jacxsens Liesbeth	Dietary acrylamide intake by potato crisps consumers: A case of Nairobi County.	Open Agriculture	December 2020
George Ooko Abong', Tawanda Muzhingi, Michael Wandayi Okoth, Fredrick Ng'ang'a, Phillis E. Ochieng', Daniel Mahuga Mbogo, Derick Malavi, Machael Akhwale, and Sita Ghimire	Processing methods affect phytochemical contents in products prepared from orange fleshed sweetpotato leaves and roots.	Food Science and Nutrition	December 2020



<b>AUTHOR</b>	<b>TITLE</b>	<b>JOURNAL</b>	<b>PERIOD*</b>
Aftin HA, Abong GO and MW Okoth.	Quality characterization of bread retailed in nairobi county, kenya: physico-chemical and microbial profiles.	African Journal of Food, Agriculture, Nutrition and Development.	October 2020
Jere GM, Abong' GO, Njue LG, Masamba K and DG Omayio.	Exposure of school children to aflatoxins and fumonisins through maize-based diets in school meals programme in Salima district, Malawi.	African Journal of Food, Agriculture, Nutrition and Development.	October 2020
Jeff Wamiti, Wambui Kogi-Makau, Sophia Ngala and Francis E. Onyango	Development and packaging of a leucine-rich composite flour for treatment of moderate wasting in children aged 6 – 24 months.	African Journal of Food, Agriculture, Nutrition and Development.	January 2021
Ouma JO, Abong' GO and Ngala S	Contribution of cassava and cassava-based products to food and nutrition security in Migori County, Kenya.	African Journal of Food, Agriculture, Nutrition and Development.	January 2021
Sanya Emmaculate, Okoth Michael Wandayi, Abong George Ooko and Mugalavai Violet Kadenyeka.	Consumers' acceptability of extruded maize-sorghum composite flours fortified with grain amaranth, baobab and orange fleshed sweet potatoes	African Journal of Food Science	October 2020
Sanya Emmaculate, Okoth Michael Wandayi, Abong George Ooko and Mugalavai Violet Kadenyeka	Nutrient and Anti-Nutrient Composition of Extruded Cereal Flours Fortified with Grain Amaranth, Baobab and Orange-fleshed Sweet Potato Powder	Journal of Food Research	October 2020
Derick Nyabera Malavi, George Ooko Abong', Tawanda Muzhingi	Effect of food safety training on behavior change of food handlers: A case of orange-fleshed sweetpotato pur'ee processing in Kenya.	Food Control	July 2020
Duke Gekonge Omayio, George O. Abong', Michael W. Okoth, Charles K. Gachuiru and Agnes W. Mwang'ombe.	Trends and Constraints in Guava (Psidium Guajava L.) Production, Utilization, Processing and Preservation in Kenya. July 2020.	International Journal of Fruit Science	July 2020
Samuel O. Onyango, George O. Abong, Michael W. Okoth, Dora Kilalo and Agnes W. Mwang'ombe	Physico-chemical properties and sensory quality of cassava-cowpea-millet composite flours.	African Crop Science Journal	October 2020
Beinah, A., Kunyanga, C., and Ngugi, K	Utilization and Processing of Sorghum by Small Holder Farmers in Drought Prone AgroEcological Zones of Kenya.	Advances in Social Sciences Research Journal	2020

<b>AUTHOR</b>	<b>TITLE</b>	<b>JOURNAL</b>	<b>PERIOD*</b>
Ogumo EO, Kunyanga CN, Kimenju JW, Okoth MW	Performance of a fabricated solar-powered vapour compression cooler in maintaining post-harvest quality of French beans in Kenya	African Journal of Food Science	2020
Gichure, J. N., Kunyanga, C.N. Imungi, J.K.	Processing Variations, Nutritional and Sensory Quality of Ethnic Deep-Fried Meats from Kenyan Pastoral Communities.	African Journal of Food, Agriculture, Nutrition and Development	2020
Vila-Real, C., Pimenta-Martins, A., Magu, J., Kunyanga, C., Mbugua, S., Katina, K., Pinto, E.	A culture-sensitive semi-quantitative FFQ for use among the adult population in Nairobi, Kenya: Development, validity and reproducibility.	Public Health Nutrition	2020
Mbugua, M., Nzuma, J., Muange, E. & Kunyanga, C.N.	Social networks and household food consumption smoothing in the presence of idiosyncratic shocks: insights from rural Kenya	Development in Practice	2020
Muthike, C., Imungi, J., and Makau, W. K.	Cancer Chemoprevention through Consumption of African Leafy Vegetables: A review	Journal of Nutrition and Dietetics	January 2019
Joyce W. Wanjiru, Jasper K. Imungi, Lucy G. Njue	Moisture and Aflatoxin Contents of Kenyan Market Peanuts and Decontamination with Water, Lime and Ultraviolet Radiation Treatments	Asian Food Science Journal	2020
Gibson Mapopa Jere, George O. Abong', Lucy G. Njue, Kingsley Masamba and Duke G. Omayio	Postharvest Handling Knowledge and Practices among Food Handlers on Mycotoxigenic Molds Contamination in Maize Based Diets in School Meals Programme Salima District, Malawi	Asian Food Science Journal	2020
Beatrice J. Birgen, Lucy G. Njue, Dasel W.M. Kaindi, Fredrick O. Ogutu and Joshua O. Owade	Quantitative versus qualitative risk assessment of meat and its products: what is feasible for Sub-Saharan African Countries?	Critical Reviews in Food Science and Nutrition	August 2020

## Papers Presented at Conferences

Invited Staff	Theme	Place	Period*
Benson Ouma. N, Michael W. Okoth, Nzioka J. Muthama, George Abong', M. Villacampa	Capacity building influence on waste management among horticultural processing medium and small microenterprises in Kenya	Virtual-Zoom	5-7 October 2020
Benson Ouma. N, Michael W. Okoth, Nzioka J. Muthama, George Abong', M. Villacampa.	Knowledge, attitudes and practices synthesis of waste management among horticultural processing msms in Kenya	Virtual-Zoom	5-7 October 2020
Obiero L. Maryanne, George Abong', Michael W. Okoth, Nzioka J. Muthama, M. Villacampa.	Energy and water use for processing by horticultural processing micro, small and medium enterprises in Kenya	Virtual-Zoom	5-7 October 2020
George Abong', Gekonge Duke, Elmah Geoffrey, Marion Villacampa	Energy and water use for processing by horticultural processing micro, small and medium enterprises in Kenya	Virtual-Zoom	5-7 October 2020

## Consultancies

### 1. SUN Business Network - Basic Nutrition Training

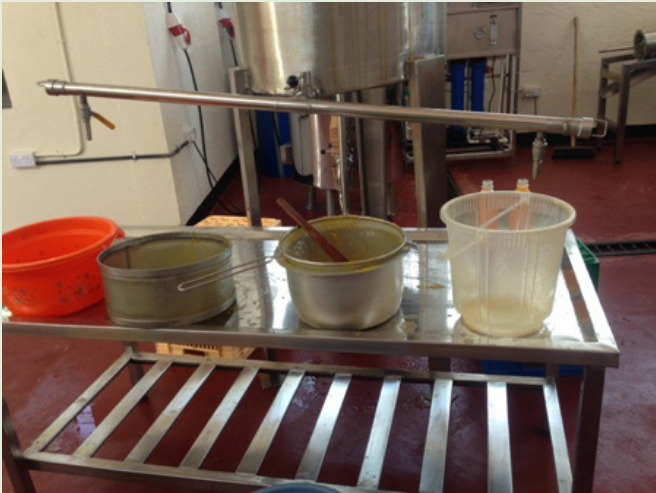
The Global Alliance for Improved Nutrition's (GAIN) Marketplace for Nutritious Foods (the Marketplace) is a platform that strengthens networks, fosters innovations and promotes investment to transform local agriculture into accessible and nutritious foods. The Marketplace offers networking and knowledge sharing opportunities, business planning support, and access to financial grants and investment to local companies looking to turn their innovative and nutrition-enhancing concepts into sustainable products. The ultimate goal of the Marketplace is to create local markets full of diverse, nutritious, and affordable foods for the consumers.

To contribute towards this goal GAIN developed a curriculum of training content that was delivered between June 3<sup>rd</sup> – June 5<sup>th</sup> 2020 through joint training, to small and medium-sized enterprises (SMEs) involved in the production of nutritious foods. Members of DFSNT involved were Dr Catherine Kunyanga and Dr Jeff Wamiti.



# Major Achievements

## 1. Fruit Processing Line at the Pilot Plant



## 2. Renovation of the Applied Nutrition Programme Conference Room

Before and after photographs of the conference room



### Staff Establishment

Designation	No. of Staff
Associate Professor	2
Senior Lecturer	2
Lecturer	4
Assistant Lecturer	1
Tutorial Fellow	1
Part-time Staff	3
Dietetic Preceptors	2
Chief Technologist	1
Senior Technologist	4
Technologists	6
Technical Assistant	2
Secretary	1
Office Assistant	2
Drivers	2
Support staff	5
<b>Total</b>	<b>38</b>

# Department of Land Resources and Management and Agricultural Technology

## Introduction

The Department of LARMAT has a unique heritage; it was established in 2005 following the merger of two previously full-fledged departments and an Institute. The departments were Soil Science and Range Management, and the Institute for Dryland Research Development and Utilization. The Department is the second largest and dynamic in the Faculty of Agriculture, College of Agriculture and Veterinary Sciences. The Department of Land Resources and Management and Agricultural Technology (LARMAT), through training, research and community service aims at enhancing sustainable natural resources management and development of technologies suitable for sustainable livelihoods and informing policy.

## Programmes Offered

Doctoral	Masters	Bachelor
Doctor of Philosophy in Agroforestry	Master of Science in Agro forestry	Bachelor of Science in agriculture (Land resources Major)
Doctor of Philosophy in Dryland Resource Management	Master of Science in Management of Agroecosystems and Environment	Bachelor of Science (Land economics and agro-ecosystem management)
Doctor of Philosophy on Management of Agroecosystem and Environment	Masters of Science in Land and Water Management	Bachelor of Science in Range Management
Doctor of Philosophy in Range Management	Masters of Science in Range Management	Bachelor of Science in Management of Agro-Ecosystems and Environment
Doctor of Philosophy in Soil Science	Masters of Science in Soil Science	
Doctor of Philosophy in Sustainable Soil Resource Management	Masters of Science in Sustainable Soil Resource Management	

## Services Offered

1. Legume inoculants production-Bio fix fertilizer
2. Soil Testing, plant analysis and interpretation to farmers
3. Herbarium Management
4. Hydrology and water quality assessment

## Strategic Issues

1. Resources and Governance
2. Teaching and Learning
3. Research, Innovation and Technology
4. Competitiveness of the University

## Major Achievement in the Year 2020

In 2020, the Department was Ranked 7 out of 66 teaching departments in the University of Nairobi Performance Contract Ranking.

## Number of Graduates

In the year 2020, the Department graduated the following numbers in various programmes

Programmes	No of Graduates
Bachelor of Science in Range Management	20
Bachelor of Science in Management of Agro-Ecosystems and Environment	23
Bachelor of Science in Agriculture (Land resources Major)	2
Masters of Science in Land and Water Management	1
Masters of Science in Range Management	1
Masters of Science in Soil Science	4
Doctor of Philosophy in Dryland Resource Management	1
Doctor of Philosophy in Range Management	2
Doctor of Philosophy in Soil Science	1
Doctor of Philosophy in Sustainable Soil Resource Management	1
<b>Total</b>	<b>56</b>

## Enrolled Students in Undergraduate and Post Graduates

In the year 2020, the Department enrolled the following numbers

Programme	No of Students
Bachelor of Science in Management of Agro-Ecosystems and Environment	21
Master of Science in Management of Agroecosystems and Environment	2
Masters of Science in Land and Water Management	4
Masters of Science in Range Management	8
Masters of Science in Soil Science	1
<b>Total</b>	<b>36</b>

## Research Activities

In the year 2020, nine (9) staff members won various grants for project work as PIs

Research Project	PI
DOWN2EARTH: Translation of climate information into multilevel decision support for social adaptation, policy development, and resilience to water scarcity in the Horn of Africa Drylands	Dr. Oliver Wasonga
Socially inclusive adaptation knowledge for resilient livelihoods in Northern Kenya.	Dr. Staline Kibet
Drought Resilience in East African Dryland Regions (DRIER)	Dr. Oliver Wasonga
Governing Economic hubs and flows in Somali East Africa (GOVESEA)	Dr. Oliver Wasonga

Research Project	PI
Economic valuation of selected sustainable rangeland management practices in Isiolo County, Kenya	Dr. Oliver Wasonga
Studying the use of Mezquite to improve welfare of communities in Arid and Semi-arid zones of the World	Dr. Oscar Koech:
Arid ethno-forestry food systems: A wellbeing alternative for communities living in drylands of the world	Dr. Oscar Koech:
Understanding the Contribution of Atmospheric Nitrogen to the Increasing Nitrogen Levels in Lake Victoria, Kenya	Dr. Anne Karuma
Validate and promote grass-based diets for low enteric methane emissions for finishing steers.	Prof. Moses M. Nyangito
Enhancing cassava production, adoption and utilization for improved food security in Kenya	Dr. Judith Mbau
Building on CARIAA learning on Women entrepreneur, Migration and climate – resilience development	Dr. Oliver Wasonga
“Provide training, research and community services, including technological transfer, transmission of information, simulation of intellectual life and cultural development”	Dr. Oliver Wasonga
Supporting the elaboration of a national strategy for the management of <i>Prosopis</i> in Kenya	Dr. Staline Kibet
“Climate Smart Technologies for restoration of degraded ASALS and enhancement of communities resilience in south eastern Kenya”	Prof. Geoffrey Kironchi
Climate-smart adaptive technologies for sustainable production and postharvest management and utilization of ware potato in Kenya.	Prof. Nancy Karanja
Escaping the pastoralist paradox in the face of climate change: A comparative analysis of different tenure systems and their implications for climate vulnerability in semi-arid Sub-Saharan African.	Dr. S.M. Mureithi

## International Links and Collaborations

In the year 2020, the department had the following links:

Initiative	Collaborators
Down2earth Project to tackle climate change resilience in the Horn of Africa Led by Dr. Oliver Wasonga	<ul style="list-style-type: none"> <li>- Cardiff University,</li> <li>- University of Bristol,</li> <li>- Stitching VU</li> <li>- Ghent University,</li> <li>- University of East Anglia,</li> <li>- University of Hohenheim,</li> <li>- Intergovernmental Authority on Development (IGAD) Climate Prediction and Applications Centre (ICPAC), Water and Land Information Management,</li> <li>- Climate Analytics gGmbH, Addis Ababa University,</li> <li>- BBC Media Action</li> </ul>



Initiative	Collaborators
<p>Building on CARIAA learning on Women entrepreneur, Migration and climate – resilience development Led by Dr. Oliver Wasonga</p>	<ul style="list-style-type: none"> <li>- The University of East Anglia,</li> <li>- University of Cape Town (UCT),</li> <li>- Indian Institute for Human Settlements (IIHS)</li> <li>- International Water Management Institute (IWMI)</li> <li>- University of Nairobi (UoN)</li> <li>- Kenya Markets Trust (KMT)</li> </ul>
<p>Provide training, research and community services, including technological transfer, transmission of information, simulation of intellectual life and cultural development Led by Dr. Oliver Wasonga</p>	<ul style="list-style-type: none"> <li>- University of Nairobi and</li> <li>- Centre for research and Development in Drylands</li> </ul>
<p>Supporting the elaboration of a national strategy for the management of Prosopis in Kenya” Led by Dr. Staline Kibet</p>	<ul style="list-style-type: none"> <li>- CABI Switzerland</li> <li>- Centre for training &amp; Integrated research in ASAL (CETRAD)</li> <li>- CABI Kenya</li> <li>- Kenya Forestry Research Institute (KEFRI)</li> </ul>
<p>Climate smart technologies for restoration of degraded ASALs and enhancement of communities resilience in south Eastern Kenya Led by Prof. Geoffrey Kironchi</p>	<ul style="list-style-type: none"> <li>- University of Nairobi</li> <li>- Kenya Agricultural and Livestock Research Organization (KALRO)</li> </ul>
<p>Validate and promote grass-based diets for low enteric methane emissions for finishing steers. A Research Project: funded by Kenya Climate Smart Program (KCSAP) Led by Prof. Moses Nyangito</p>	<ul style="list-style-type: none"> <li>- University of Nairobi</li> <li>- Kenya Agricultural and Livestock Research Organization (KALRO)</li> </ul>
<p>Use innovative approaches in dryland borders of Kenya and Uganda focusing on livelihood improvement through rangeland (grazing areas) restoration and governance interventions Led by Dr. Stephen Mureithi</p>	<ul style="list-style-type: none"> <li>- University of Nairobi</li> <li>- School of Global Studies, Gothenburg University,</li> <li>- Umeå, University,</li> <li>- Makerere University,</li> <li>- IGAD</li> <li>- ICRAF</li> </ul>
<p>Studying the use of Mezquite to improve welfare of communities in arid and semi-arid zones of the world”- Equipment hand over and training on use and maintenance Led by Dr. Oscar Koech</p>	<ul style="list-style-type: none"> <li>- University of Nairobi</li> <li>- Global Challenge research fund</li> <li>- University of Nottingham</li> </ul>
<p>Escaping the pastoralist paradox in the face of climate change: A comparative analysis of different tenure systems and their implications for climate vulnerability in semi-arid Sub-Saharan African Led by Dr. Stephen Mureithi</p>	<ul style="list-style-type: none"> <li>- Swedish University of Agricultural Sciences</li> <li>- The University of Nairobi</li> </ul>

Initiative	Collaborators
Innovative EO- Based drought model for African pastoral areas to improve sovereign disaster risk management under African Risk Capacity(ARC)' (EOPAM-ARC) <i>Led by Dr. Stephen Mureithi</i>	- University of Nairobi - African Risk Capacity (ARC) - ILRI - Government of Kenya - National Drought Management Authority (NDMA)
Training on Indigenous Knowledge documentation, preservation and practice in preparation for the implementation of Traditional Knowledge, cultural expression and folklore, 2016 Act <i>Led by Dr. Staline Kibet</i>	- National Museums of Kenya, - University of Nairobi
African Risk Capacity Programme in Kenya Technical Workshop on Contingency Planning. <i>Led by Dr. Oscar Koech</i>	- University of Nairobi, - National Drought Management Authority (NDMA)
Regional Drought Resilience Research Collaborative Network Pathways <i>Led by Dr. Oliver Wasonga</i>	- University of Nairobi, - IGAD Drought Disaster Resilience Initiative (IDDRSI), - IGAD Food Security, Nutrition and Resilience Analysis Hub (IFRAH) - Resilience Analysis Unit - (RAU) and USAID

## Publications

In the year 2020, the Department's scholars published thirty-eight (38) articles in various Journals

1. Fungomeli, M., Cianciaruso, M., Zannini, P., Githitho, A., Frascaroli, F., Fulanda, B., **Kibet, S.**, Wiemers, M., Mbuvi, M.T., Matiku, P. and Chiarucci, A., 2020. Woody plant species diversity of the coastal forests of Kenya: filling in knowledge gaps in a biodiversity hotspot. *Plant Biosystems-An International Journal Dealing with all Aspects of Plant Biology*, 154(6), pp.973-982.
2. Galvin, K.A., Even, T., Reid, R.S., **Njoka, J.**, de Pinho, J.R., Thornton, P., & Saylor, K. (2020). Understanding Climate from the Ground Up: Knowledge of Environmental Changes in the East African Savannas. In *Changing Climate, Changing Worlds* (pp. 221-242). Springer, Cham.
3. Gitari, H. I., **Nyawade, S.O.**, **Kamau, S.**, **Karanja, N.N.**, **Gachene, C.K.**, Raza, M.A., & Schulte-Geldermann, E. (2020). Revisiting intercropping indices with respect to potato-legume intercropping systems. *Field Crops Research*, 258, 107957.
4. Harmsen, H., Wang'ondou, V.W., **Mbau, J.S.**, & Muthama, N.J. (2021). Randomized hotspot strategy is effective in countering bushmeat poaching by snaring. *Biological Conservation*, 253, 108909.
5. **Ichami, S.M.**, Shepherd, K.D., Hoffland, E., **Karuku, G.N.**, & Stoorvogel, J.J. (2020). Soil spatial variation to guide the development of fertilizer use recommendations for smallholder farms in western Kenya. *Geoderma Regional*, 22, e00300.
6. **J. Chepkemoi, R.N. Onwonga, R.N.** Nyakanga, (2020) Soil Organic Carbon Stocks as Influenced by Topography and Vegetation Cover Types at Different Soil Depths, *Journal of Agriculture and Sustainability*

7. **Kamau, H.N., Koech, O.K., Mureithi, S. M., Wasonga, O.V., & Gachene, C.K.K.** (2020). Grass species for range rehabilitation: Perceptions of a pastoral community in Narok North sub-county, Kenya. *African Journal of Agricultural Research*, 16(8), 1204-1212.
8. **Kamau, S., Barrios, E., Karanja, N.K., Ayuke, F.O., & Lehmann, J.** (2020). Dominant tree species and earthworms affect soil aggregation and carbon content along a soil degradation gradient in an agricultural landscape. *Geoderma*, 359, 113983.
9. **Kamau, S., Barrios, E., Karanja, N.K., Ayuke, F.O., & Lehmann, J.** (2020). Short-term casting activity of earthworm *Pontoscolex corethrurus* (Oligochaeta: Glossoscolecidae) after biochar additions. *Soil Biology and Biochemistry*, 143, 107736.
10. **Kamau, S., Barrios, E., Karanja, N.K., Ayuke, F.O., & Lehmann, J.** (2020). Short-term casting activity of earthworm *Pontoscolex corethrurus* (Oligochaeta: Glossoscolecidae) after biochar additions. *Soil Biology and Biochemistry*, 143, 107736.
11. **Karuma, A.N., Gicheru, P.T., & Gachene, C. K.** (2020). Financial Returns of Maize and Bean Production under Selected Tillage Practices in Semi-arid Area of Mwala Sub County, Kenya. *Asian Journal of Agricultural Extension, Economics & Sociology*, 11-23.
12. **Lutta, A.I., Wasonga, O.V., Nyangito, M.M., Sudan, F. K., & Robinson, L. W.** (2020). Adoption of water harvesting technologies among agro-pastoralists in semi-arid rangelands of South Eastern Kenya. *Environmental Systems Research*, 9(1), 1-12.
13. **Lutta, A.I., Wasonga, O.V., Robinson, L. W., Nyangito, M.M., & Sircely, J.** (2020). Determinants of livestock market participation among pastoral communities of Tana River County, Kenya. *Environment, Development and Sustainability*, 1-19.
14. **Lutta, A., Wasonga, O.V., Nyangito, M., Sudan, F.K., & Robinson, L.** (2020). Determinants of Adoption Decisions of Water Harvesting Structures among Pastoral Areas of Kenya.
15. Maina J, Wandiga S Gyampoh B and **Gachene CKK (2020)** Assessment of Land Use and Land Cover Change Using GIS and Remote Sensing: A Case Study of Kieni, Central Kenya, *Journal of Remote Sensing & GIS*
16. Mugo, J.N., **Karanja, N. N., Gachene, C.K., Dittert, K., Nyawade, S.O., & Schulte-Geldermann, E.** (2020). Assessment of soil fertility and potato crop nutrient status in central and eastern highlands of Kenya. *Scientific reports*, 10(1), 1-11.
17. **Musa, A.M., Wasonga, O.V., & Mtimet, N.** (2020). Factors influencing livestock export in Somaliland's terminal markets. *Pastoralism*, 10(1), 1-13.
18. **Mwendwa, S.M., Mbuvi, J.P., Kironchi, G., & Gachene, C.K.** (2020). A Geopedological Approach to Soil Classification to Characterize Soils of Upper Kabete Campus Field, University of Nairobi, Kenya. *Tropical and Subtropical Agroecosystems*, 23(2).
19. **Nabintu, N.B., Ndemo, O.R., Sharwasi, N.L., Gustave, M.N., Muzee, K., & Okoth, K.S.** (2020). Demographic factors and perception in rhizobium inoculant adoption among smallholder soybeans (*Glycine max L. Merrill*) farmers of South Kivu Province of Democratic Republic of Congo. *African Journal of Agricultural Research*, 16(11), 1562-1572.
20. **Ng'asike, O.A.P., Hagmann, T., & Wasonga, O.V.** (2021). Brokerage in the borderlands: the political economy of livestock intermediaries in northern Kenya. *Journal of Eastern African Studies*, 15(1), 168-188.
21. **Nyawade, S.O., Karanja, N.N., Gachene, C.K., Gitari, H.I., Schulte-Geldermann, E., & Parker, M.** (2020). Optimizing soil nitrogen balance in a potato cropping system through legume intercropping. *Nutrient Cycling in Agroecosystems*, 1-17.
22. **Nyawade, S., Gitari, H.I., Karanja, N. N., Gachene, C.K.K., Schulte-Geldermann, E., Sharma, K., & Parker, M.** (2020). Enhancing climate resilience of rain-fed potato through legume intercropping and silicon application. *Front. Sustain. Food Syst.* 4: 566345. doi: 10.3389/fsufs.

23. Nyilyitya, B., **Mureithi, S.**, & Boeckx, P. (2020). Land use controls Kenyan riverine nitrate discharge into Lake Victoria—evidence from Nyando, Nzoia and Sondu Miriu river catchments. *Isotopes in environmental and health studies*, 56(2), 170-192.
24. Nyilyitya, B., **Mureithi, S.**, & Boeckx, P. (2020). Tracking sources and fate of groundwater nitrate in Kisumu City and Kano Plains, Kenya. *Water*, 12(2), 401.
25. Nyilyitya, B., **Mureithi, S.**, Bauters, M., & Boeckx, P. (2021). Nitrate source apportionment in the complex Nyando tropical river basin in Kenya. *Journal of Hydrology*, 594, 125926.
26. **Onwonga, R.N.**, **Sitienei, R.C.**, Lelei, J.J., & Kamoni, P. (2020). Complementary effects of legume integration and fertilizer application on soil moisture and long-term carbon stocks in maize systems of Kabete sub-county, Kenya. *Tropical and Subtropical Agroecosystems*, 23(1).
27. **Osaliya, R.**, **Wasonga, O.V.**, Mwanjalolo, J.M., MacOpiyo, L., **Kironchi, G.**, & Adipala, E. (2020). Predicted land use and land cover outlook for semi-arid Lokere and Lokok catchments in Karamoja region, Uganda. *African Crop Science Journal*, 28(4), 595-616.
28. **Osaliya, R.**, **Wasonga, O.V.**, Mwanjalolo, J. M., MacOpiyo, L., **Kironchi, G.**, & Adipala, E. (2020). Predicted land use and land cover outlook for semi-arid Lokere and Lokok catchments in Karamoja region, Uganda. *African Crop Science Journal*, 28(4), 595-616.
29. Otieno, H.M.O., Chemining'wa, G.N., Zingore, S., & **Gachene, C.K.** (2020). Tillage Method and Residual N, P, K, Zn, B, Mg, Ca, and S Nutrients Effect on Growth and Yield of Dry Bean Grown after the Harvest of Maize. *Turkish Journal of Agriculture-Food Science and Technology*, 8(1), 18-26.
30. **S. Muwanga, R. Onwonga, S. O. Keya** & E. Komutunga 2020. Sedentary Agriculture and Its Implications on Soil Quality in Agro-pastoral Semi-arid Karamoja, Uganda. *Journal of Agricultural Science*; Vol. 12, No. 4; 148-162
31. **S. Muwanga R.N. Onwonga, S.O. Keya** & E. Komutunga, (2020), Influence of Agro-pastoral Activities on Land Use and Land Cover Change in Karamoja, Uganda, *Journal of Agricultural Science*. Vol. 12, No. 9; 266-278
32. **Sala, S.M.**, Otieno, D.J., Nzuma, J., & **Mureithi, S.M.** (2020). Determinants of pastoralists' participation in commercial fodder markets for livelihood resilience in drylands of northern Kenya: Case of Isiolo. *Pastoralism*, 10(1), 1-16.
33. **Senda, T.S.**, Robinson, L. W., **Gachene, C.K.**, **Kironchi, G.**, & Doyo, J. (2020). An assessment of the implications of alternative scales of communal land tenure formalization in pastoral systems. *Land Use Policy*, 94, 104535.
34. **Senda, T. S.**, Robinson, L. W., **Gachene, C. K.**, **Kironchi, G.**, & Doyo, J. (2020). An assessment of the implications of alternative scales of communal land tenure formalization in pastoral systems. *Land Use Policy*, 94, 104535.
35. Siminyu, P., **Mbau, J.**, & Oluoch-Kosura, W. (2020). The Contribution of Climate Smart Agriculture Practices in Mitigating Farmers against Maize Yield Losses, a Case of Bukembe ward in Bungoma County. *Journal of Sustainability, Environment and Peace*, 3(2), 41-45.e.
36. **Wairimu Ng'ang'a, T.**, & Crane, T.A. (2020). Social differentiation in climate change adaptation: One community, multiple pathways in transitioning Kenyan pastoralism. *Environmental Science & Policy*, 114, 478-485.
37. Wairimu Ng'ang'a, T., Coulibaly, J.Y., Crane, T.A., **Gachene, C. K.**, & **Kironchi, G.** (2020). Propensity to adapt to climate change: insights from pastoralist and agro-pastoralist households of Laikipia County, Kenya. *Climatic Change*, 161(3), 393-413.
38. Warui, M.W., Mburu, J., **Kironchi, G.**, & Gikungu, M. (2020). Existing value addition initiatives enhancing recognition of territorial traits of three Kenyan honey. *The Journal of World Intellectual Property*, 23(3-4), 598-605.

## Policy Briefs

In 2020, the Department produced seven (7) Policy briefs

1. Dr. Stephen Mureithi, *Dr. David Jakinda and Dr. Jonathan Nzuma, (2020) Regreening the Drylands: Fodder Groups as potential pathway for up scaling commercial fodder production, AgriFoSe2030 Brief*
2. Eschen, R., Ehrensperger, A., Kaaya, O.E., **Kibet, S.**, van Wilgen, B. (2020). Risks associated with promoting alien tree species for social benefits. The Woody Weeds Project. Policy Brief
3. **Ng'asike, O Philemon** (2020). Making devolution work for livestock trading in Northern Kenya. African Drylands Institute for Sustainability. Policy Brief
4. **Oliver V. Wasonga** and IGAD, (2020), Towards Sustainable Rangeland Management in IGAD Region, *Policy Brief No. ICPALD25/CLE/2/2020*
5. **Oliver V. Wasonga, Alphayo Lutta1, Staline Kibet**, Ahmed Bakari Maunguja1, Hassan Guyo Roba, (2020), Traditional Climate Early Warning: Enablers and Opportunities for Its Application of Weather Forecasting Practices in Pastoral Kenya, *Policy paper*
6. **Ouna, E., Njoka, J.**, Keya, S., & Wanjogu, R. (2020). Converting Agro-Waste into Biochar: Improving Soil Fertility and Productivity in ASAL Ecosystems. *Kenya Policy Briefs, 1(1)*, 7–8.
7. Per Knutsson, Barbara Schumann, Agneta Hörnell, Kristina Lindvall, **Stephen Mureithi**, Dennis Mpairwe, Alice Turinawe, Dereje Wakjira, Leigh Winowiecki, Tor-Gunnar Vågen (2020), SLU granted for innovative research to achieve the Global goals in East Africa, *SLU Policy brief*

## Papers Presented

In 2020, the Department presented ten (10) Papers

1. Lutta I.A., Wasonga V.O., Karanja R., Saalu F., Njiru J. (2020), Costs and Benefits of Sustainable Rangeland Management Practices in Northern Kenya, *The Economics of Land Degradation* workshop.
2. Oliver Wasonga (2020), CELEP Webinar “Lessons learnt from Participatory Rangelands Management in Eastern Africa” *CELEP Webinar*
3. Oliver Wasonga (2020), From Crisis to Action; Global Agenda for Sustainable Livestock, *Webinar*
4. Oliver Wasonga (2020), Promoting Innovation to Build Resilience Against Climate Shocks, *Webinar on Knowledge Share Fair*.
5. Oliver Wasonga (2020), The Regional International Year for Rangelands and Pastoralists Support Group (RISG), *Global Rangeland Webinar*
6. Oliver Wasonga and Dr. Staline Kibet, (2020), Under project: Socially inclusive adaptation knowledge for resilient livelihoods in northern Kenya (SOAK) project, *Knowledge Brokering Learning Exchange Workshop (CDKN)*
7. Oliver Wasonga and Mr. Alpha Lutta (2020), Sub-Saharan Africa Dialogue – Dasgupta Review on the Economics of Biodiversity, *Webinar: Dasgupta Review of the Economics of Biodiversity*
8. Oliver Wasonga, (2020), Drought – Covid-19 Interface-Insight for post pandemic recovery in pastoral systems, *WASAG-webinar*.
9. Sharon Teyie and Fredrick Otieno, Oliver Wasonga, (2020), “Investigating the charcoal value chain and the impacts of the production process on soil and vegetation properties”, *Workshop in Marich Pass*
10. Stephen Mureithi, (2020), “Innovative EO-based drought model for African Pastoral areas to improve sovereign disaster risk Management under African Risk Capacity (EOPAM-ARC)” project, African Risk capacity (ARC)

## Corporate and Community Outreach Activities

In 2020, the Department conducted the following community outreach activities:

1. Improve the welfare of less advantaged community groups in the drylands of developing countries, including Mexico, Kenya and Tanzania using *Prosopis* resource, 11<sup>th</sup> – 14<sup>th</sup> January 2020



*Different Methods of Drying Prosopis Juliflora Pods*

2. Organized a community and stakeholders' workshop on the use of *Prosopis juliflora* (Mezquite) to improve welfare of communities in the arid Baringo County, 18<sup>th</sup> – 24<sup>th</sup> January 2020



*Dr. Oscar Koech from the Department organized a workshop under the project "Studying the Use of Mezquite to Improve Welfare of Communities in Arid and Semi-arid Zones of the World"*



*Dr. Oscar Koech and Dr. Staline Kibet with a community in Baringo while being trained on use of Prosopis juliflora*

3. Assessment of Effects of Cochineal Bugs Release on *Opuntia Stricta* in Northern Laikipia County, on February 24, 2020



*Dr. Staline Kibet a lecturer from LARMAT joined Prof. Shirley Strum and Mr. Patrick Mwangi of ENBP to assess the effects of Cochineal bugs damage to Opuntia stricta invasive weeds after unusually prolong rainy season in late 2019 at Oljogi Ranch, Laikipia County (left) and Dr. S Kibet inspecting Manual removal of Opuntia stricta in Laikipia (right)*

4. A Workshop on Service Provider Sensitization on ASDSP II Capacity Building and Innovations Grant Mechanism, 4<sup>th</sup>-5<sup>th</sup> March, 2020



*Dr. Oscar Koech from the University of Nairobi (UoN), Department of Land Resource Management and Agricultural Technology (LARMAT) on 4<sup>th</sup> and 5<sup>th</sup> March, 2020 participated in a workshop held Kaputiei Safariland Hotel, Kitengela*

5. Assessment of Status Of Gef- Sgp Funded Projects; Butterfly Farming, local community of Kilifi county, 6<sup>th</sup> October, 2020



*Dr. Judith Mbau (fourth right) with some Kaya elders from Kilifi County and Mr. Kamau (far left) from Institute of Culture and Ecology (ICE)*





*Dr. Judith Mbau assessing the progress made by farmers who have embraced butterfly farming within the buffer zone of Kaya Kauma in Kilifi County. Both the youth and women have embraced the income generating via butterfly farming*

6. Building Drought Resilience in Samburu through Sustainable Rangelands Management (DR-SRM) Project, Scoping Mission in Preparation for Dr-SRM Project Kick-off in Samburu County, Nov. 2, 2020



*The DR-SRM project team takes a photo after a briefing meeting with the Deputy Governor, Samburu County in his office on Monday Nov. 2, 2020. Present in the meeting were (from right) His Excellency Deputy Governor, Julius Leseeto, Dr. Stephen Mureithi (University of Nairobi), Daniel Lesaiyor, CO Special Programmes, Dr. Davis Ikiror, Country Director VSF-Suisse, Eric Rosana, VSF–Suisse, Hon. Irene Senei, CEC Environment, Water and Natural Resources, Tyson, Ag. CO, Agriculture, Livestock and Fisheries, and Joseph Kilonzo, DLPO Samburu County (not in the picture).*

## Staff Portfolio

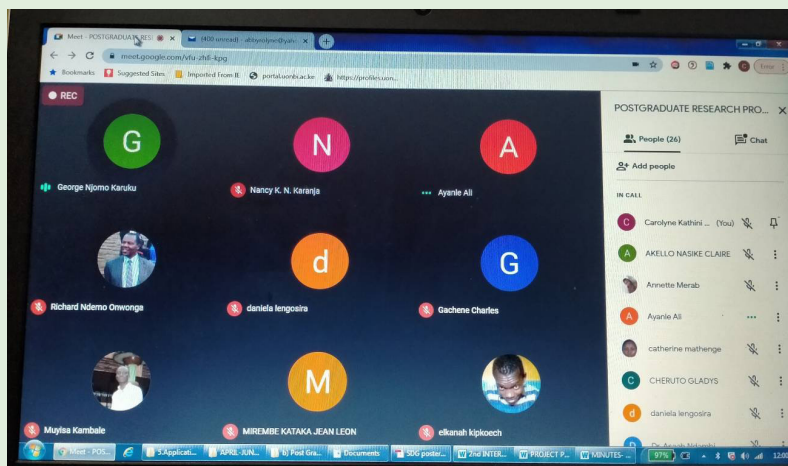
Designations	Establishment	Occupied
Full professors	3	2
Associate professors	6	4
Senior lecturers	11	3
Lecturers	15	7
Tutorial fellow	7	1
Principal Technologist	1	0
Chief Technologist	1	1
Assistant Chief Technologist	4	2
Senior Technologist	8	2
Technologist	11	1
Driver, Grade IV	1	1
Technical Assistant ( III)	7	2
Field Assistant (II)	5	0
Subordinate Staff	9	2
<b>Total</b>	<b>89</b>	<b>28</b>

## Strategic Projections

- i) Participate in Covid-19 Webinar and write projects in relation to Covid-19
- ii) Seeking more research funds through calls/project proposal to assist both our graduate students and for the farmers through
- iii) More publications both articles/books and teaching modules with emphasis on e-learning platforms
- iv) Revise curriculum of various programmes
- v) Prepare a draft on departmental strategic plan
- vi) Ensure GIS lab is full in operation with adequate softwares installed

## Any Other Relevant Information

Post Graduate Students Proposal Presentations Held Virtually on Thursday, 26<sup>th</sup> November 2020



*Virtual presentations on progress via Google meet*

2. LARMAT PhD & MSc Project Proposal Presentation on 12<sup>th</sup> March 2020



*Student presenting her research proposal to supervisors and students*

3. The 18<sup>TH</sup> PHD student seminar on 27<sup>th</sup> Feb 2020



*PhD Student presenting research progress to faculty members*

# Department of Plant Science and Crop Protection

## Introduction

The Department of Plant Science and Crop Protection started as two departments, Department of Crop Production and Department of Applied Science in the Faculty of Agriculture in 1970/71 within the College of Agriculture and Veterinary Sciences (CAVS), Upper Kabete Campus. The two departments were later re-organized, merged and renamed the Department of Crop Science. In 1997, the Department of Crop Science was split into two departments namely, Department of Crop Science and Department of Crop Protection. In 2005, the two departments were merged to form the Department of Plant Science and Crop Protection.

After the merger, the Department was re-organized into two sections; namely Crop Science and Crop Protection. The Crop Science Section is made up of the following units: Agronomy, Horticulture, Plant Breeding and Biometry. While the Crop Protection Section is made up of Plant Pathology and Entomology Units. The Department teaches most of the courses for the BSc Agriculture and offers 51 service courses to BSc Agricultural Education and Extension, BSc Agribusiness Management, BSc Management of Agroecosystems & Environment, BSc Range Management, Food Science, Nutrition & Dietetics, Food Science & Technology in the Faculty of Agriculture. It offers a BSc course in Horticulture, Diploma in Crop Protection and postgraduate programmes at masters and PhD in Agronomy, Plant Breeding and Biotechnology, Plant Pathology, Crop Protection, Horticulture, Seed Technology and Business Management and Agricultural Resource Management.

The Department undertakes rigorous training for both Undergraduate and Postgraduate levels and conducts research geared towards solving national and international problems. The Department also undertakes consultancies, advisory services and encourages both national and international collaboration. The Department has strong linkages with national, regional and international research institutions and universities.

The Department has qualified staff and thus able to deliver quality training and research in all areas of its mandate

## Programmes and Services Offered

- Diploma in Crop Protection
- BSc. in Horticulture
- BSc. Agriculture (Crop Science Major)
- BSc. Agriculture (Crop Protection Major)
- MSc. Agricultural Resource Management
- MSc. Agronomy
- MSc. Horticulture
- MSc. Plant Breeding and Biotechnology
- MSc. Crop Protection
- MSc. Plant Pathology
- MSc. Seed Technology and Business Management
- PhD. Agricultural Resource Management
- PhD. Horticulture
- PhD. Plant Breeding and Biotechnology
- PhD. Crop Protection
- PhD. Plant Pathology
- PhD. Seed Technology and Business Management
- Services Rendered
- Online and Face-to-Face Teaching
- Consultancy and Research
- Agricultural Extension Services
- Community Outreach

## Strategic Issues

1. Management of the Departmental resources efficiently by utilizing the allocated funds on the programmed activities.
2. To produce quality and holistic graduates in plant sciences through curriculum design, quality teaching, supervision and mentorship.
3. To contribute to the development of society through participation in outreach activities
4. To enhance the competitiveness and image of the Department as a centre of excellence in plant sciences by increasing openness and presence on the Departmental website,
5. To increase and enhance strategic partnerships and collaboration by establishing multi-stakeholder projects.
6. Improve student and employee satisfactions
7. Increase the students enrolment and completion rate in all degree programmes
8. Increase number of publications and Google Scholar citations

## Major Achievements in the Year 2020

### Journal Publications

Author	Title	Journal	Month & Year
Nyangena I., Owino W., Imathiu S., and Ambuko	Effect of pretreatments prior drying on antioxidant properties of dried mango slices	Scientific African	26 <sup>th</sup> August 2020
Tirra N., Oluoch-Kosura W., Nyanganga H. and Mwang'ombe A.	Factors influencing the level of commercialization among smallholder cassava farmers in Taita-Taveta and Kilifi counties, Kenya	African Journal of Agricultural Research	September 2020
Owade J., Abong G., Okoth M., and Mwang'ombe A.	A review of the contribution of cowpea leaves to food and nutrition in East Africa	Food Science and Nutrition	9 <sup>th</sup> November 2020
Mujuka E., Mburu J., Ogutu A. and Ambuko	Returns to investment in postharvest loss reduction technologies among mango farmers in Embu County, Kenya	Food and Energy Security <a href="https://doi.org/10.1002/fes3.195">https://doi.org/10.1002/fes3.195</a>	26 <sup>th</sup> November 2020
Were S.A, Narla R.D, Thies J.E., Mutitu E.U, Muthomi J.W. et al	Identification and quantification of soil borne root rot pathogens communities in smallholder agro-ecosystems of Kenya.	International Journal of Microbiology and Mycology 11(1): 1-17	January 2020
Atsango E., Muiru W., Mwang'ombe A. and Gaoqiong L.	Use of amino oligosacharins and Alternaria fine protein in the management of crown gall disease on roses	Research Journal of Agriculture	January 2020

Author	Title	Journal	Month & Year
Kanyenji G.M., Oluoch-Kosura W., Onyango C.M. and Ng'ang'a S.F.	Prospects and constraints in smallholder farmers' adoption of multiple soil carbon enhancing practices in Western Kenya	Heliyon 6 (2020) e03226 www.cell.com/heliyon	January 2020
Aluka P. and Ngugi K.	The diversity of Green Bean biochemical compounds in Robusta Coffee ( <i>Coffea canephora</i> Pierre ex A. Foehner) as evaluated by near infrared spectroscopy	DOI: 10.9734/bpi/atias/v3	January 2020
Sokame B.M., Rebaudo F., Malusi P., Subramanian S., Kilalo D.C., Juma G. and Calatayud P.A.	Influence of temperature on the interaction for resource utilization between fall armyworm and a community of lepidopteran maize stemborers larvae	Insects 11(73) doi:10.3390/insects11020073	21 <sup>st</sup> January 2020
Mulenga R., Miano D., Kaimoyo E., Akello J., Mbuta F., Rwahnih M., Chikoti P., Chiona M., Simulundu E. and Alabi J.	First report of Southern Bean Mosaic Virus infecting common bean in Zambia	Plant Disease	6 <sup>th</sup> February 2020
Bii, L.C., Ngugi, K., Kimani, J.M. and Chemining'wa, G.N.	Genotype by environment analysis of rice ( <i>Oryza sativa</i> L.) populations under drought stressed and well-watered environments	Australian Journal of Crop Science	March 2020
Sokame B.M., Subramanian S., Kilalo D.C., Juma G., Calatayud P.A.	Larval dispersal of the invasive fall armyworm, <i>Spodoptera frugiperda</i> , the exotic stem-borer <i>Chilo partellus</i> , and indigenous maize stemborers in Africa	Entomologia Experimentalis et Applicata 168 (4) 322-331 <a href="https://doi.org/10.1111/eea.12899">https://doi.org/10.1111/eea.12899</a>	11 <sup>th</sup> April 2020
Wanjala B., Ateka E., Miano D., Low W. and Kreuzer J.	Storage root yield of sweet potato as influenced by sweet potato leaf curl virus and its interaction with sweet potato feathery mottle virus and sweet potato chlorotic stunt virus in Kenya	Plant Disease <a href="https://doi.org/10.1094/PDIS-06-19-1196-RE">https://doi.org/10.1094/PDIS-06-19-1196-RE</a>	May 2020
Cheserek J.J., Ngugi K., Muthomi J., and Omondi C.	Assessment of Arabusta coffee hybrids [( <i>Coffea canephora</i> L. × Tetraploid Robusta ( <i>Coffea canephora</i> )] for green bean physical properties and crop quality.	African Journal of Food Science Vol. 14 (5) pp 119-127 Doi 10.10.5897/AJFS 2019.1852	June 2020

Author	Title	Journal	Month & Year
Mureithi P.M., Kavoi B.M., Onyango C.M. and Mathiu M.P.	Antiulcerogenic effects of selected African nightshades ( <i>Solanum nigrum</i> Linn.) genotypes on the rat stomach: A morphologic and morphometric study	International Journal of Morphology 38 (4): 940-946	6 <sup>th</sup> June 2020
Ngugi K. & Aluka P.	Genetic and Phenotypic diversity of Robusta Coffee ( <i>Coffea canephora</i> L.)	Caffeinated and cocoa based beverages <a href="https://doi.org/10.1016/B978-0-12-815864-7.00003-9">https://doi.org/10.1016/B978-0-12-815864-7.00003-9</a>	July 2019
Teresa Nyambura Kinyungu, James Wanjohi Muthomi, Sevgan Subramanian, Douglas Watuku Miano & Florence Mmogi Olubayo	Transmission of viruses causing maize lethal necrosis disease through seed in commercial hybrids and effect on growth in the subsequent crop	Archives of Phytopathology and Plant Protection	7 <sup>th</sup> October 2020
Bellancile U., Mupenzi M., Muthomi J., Mwang'ombe A. & Ghimire S.	Disease surveillance and farmers' knowledge of <i>Brachiaria</i> (Syn. <i>Urochloa</i> ) grass diseases in Rwanda	African Journal of Range & Forage Science	13 <sup>th</sup> October 2020
Enock Mosenda, Jane Ambuko, Willis Owino Jomo	Assessment of Agronomic Traits of Selected Spider Plant ( <i>Cleome gynandra</i> L.) Accessions	Journal of Medicinally Active Plants. Volume 9 Issue 4 Vol 9 Issue 4-African Indigenous Plants III.	December 2020
H. Wagaba, P. Kuria, P. Wangari, J. Aleu, H. Obiero, G. Beyene, T. Alicai, A. Buaa, W. Esuma, E. Nuwamanya, S. Gichuki, D. Miano, P. Raymond A. Kiggundu, N. Taylord, B.M. Zawedde, C. Taracha and D.J. MacKenzie d	Comparative compositional analysis of cassava brown streak disease resistant 4046 cassava and its non-transgenic parental cultivar	GM CROPS & FOOD 2020, VOL. 12, NO. 1, 158–169 <a href="https://doi.org/10.1080/21645698.2020.1836924">https://doi.org/10.1080/21645698.2020.1836924</a>	1 <sup>st</sup> October 2020
Jaoko V., Taning N.T., Backx S., Mulatya J., Abeele J., Magomere T., Olubayo F. et al	The Phytochemical composition of <i>Melis volkensii</i> and its potential for insect pest management	Pesticidal Plants: From Smallholder Use to Commercialization. MDPI, Basel, Switzerland pg. 111-121. Eds. Stevenson P.C., Belmain S.R. and Isman M.B.	May 2020

Author	Title	Journal	Month & Year
Jane Jerono Cheserek, Kahi Ngugi, James Wanjohi Muthomi and Chrispine Ogutu Omondi.	Genetic variability, heritability and correlation of quantitative traits for Arabusta coffee (C. arabica L. X Tetraploid C. canephora Pierre)	Journal of Plant Breeding and Crop Science, 12(1): 50-57	March 2020
Geraldin M.W. Lengai, James W. Muthomi, Ernest R. Mbega	Phytochemical activity and role of botanical pesticides in pest management for sustainable agricultural crop production. Scientific African	<a href="https://doi.org/10.1016/j.sciaf.2019.e00239">https://doi.org/10.1016/j.sciaf.2019.e00239</a>	January 2020

## Policy Brief

**Kenya Policy Briefs:** Towards Realization of Vision 2030. Volume 1 Issue 1, January 2020; Prof. Jane Ambuko featuring in the editorial team

## New Partnerships

Empowering Kenyan Women in Agriculture and Nutrition	University of Cambridge	The Cambridge-Africa ALBORADA Research Fund	01/04/2019 to 31/12/2019	ACTIVE Signed MoU
Inter-University collaboration	Stellenbosch University	MoU	28 <sup>th</sup> January 2020	Signed document

## Active Grants

Project Title	Project Objectives	Funding Institution	Project Partners	PI or UoN Co-PI
Identification, development and formulation of biological control agents and metabolites in integrated plant disease management	Overall objective To increase crop productivity by developing alternative, environmentally friendly, effective strategies that can be applied in an integrated approach in the management of important plant diseases.	NRF	Pest Control Products Board	Prof. E. Mutitu
Climate-smart adaptive technologies for sustainable production and postharvest management and utilization of ware potato in Kenya	To validate IPM technologies for management of aphids and potato tuber moth in Nyandarua County	KCSAP	KALRO; University of Nairobi; MOI University; Eldoret University	Dr Kinyua/ Prof. John Nderitu



Project Title	Project Objectives	Funding Institution	Project Partners	PI or UoN Co-PI
<p>Synergistic Climate-smart Technologies, Innovations and Management Practices for Sustainable Greenhouse Tomato Production in Kenya</p>	<p><b>Goal:</b> To enhance food and nutritional security, and income for smallholder farmers through validation and scaling up of sustainable greenhouse tomato production technologies in Kenya.</p> <p><b>Objectives</b></p> <ul style="list-style-type: none"> <li>- To validate the performance of selected improved tomato varieties under diverse agronomic practices and greenhouse conditions.</li> <li>- To validate and promote integrated pest and disease management practices for greenhouse tomato production.</li> <li>- To validate and promote a diverse range of post-harvest handling technologies for fresh tomatoes.</li> </ul>	<p>KCSAP</p>	<p>KALRO and University of Nairobi</p>	<p>Prof. John Kimenju</p>
<p>Towards Gender Mainstreaming and Social Inclusion In Climate Smart Agriculture Selected TIMPS Value Chains In Selected Counties In Kenya</p>	<ul style="list-style-type: none"> <li>- To examine women, youth and VMGs concerns, demands and needs in the validation, dissemination and adoption of CSA selected TIMPs value chains in selected counties in Kenya</li> <li>- To analyze opportunities and benefits for women, youth, men and VMGs in CSA selected TIMPs in selected counties in Kenya</li> <li>- To empower women, youth, and VMGs in order to improve their agricultural productivity and enhancement of their resilience</li> </ul>	<p>KALRO-Kenya Climate Smart Agriculture Project (KCSAP)-world bank</p>	<p>KALRO and University of Nairobi</p>	<p>Dr. Jessica Ndubi (KALRO)/ Dr. Juliana Cheboi (UoN Co-PI)</p>

Project Title	Project Objectives	Funding Institution	Project Partners	PI or UoN Co-PI
Validation of climate smart Pigeon pea Agronomic practices in Baringo, Elgeyo Marakwet, Machakos, Tharaka and Kabete	<ul style="list-style-type: none"> <li>- To validate the potential use of selected hormones in seed priming in economically important pigeon pea</li> <li>- To determine the effect of seed priming hormones on the physiological responses of the selected varieties and the effect growth and yield under drought stress conditions.</li> <li>- To validate nitrogen and phosphorus fertilizer micro-dosing and rainwater harvesting practices under varied pigeon pea and cereal inter-cropping systems</li> <li>- To validate an effective IPM strategy combining host plant resistance, bio-control and selective insecticide spraying regime(s) against the pigeon pea insect pest complex.</li> </ul>	KALRO-Kenya Climate Smart Agriculture Project (KCSAP)- world bank	University of Nairobi and Egerton University	Prof. Paul Kimani (UoN PI)
Strengthening Kenyan Small-Scale Processors to Access Market and Reduce Losses (SAP) Project	<ul style="list-style-type: none"> <li>- To establish “hub and spoke” fruit processing incubators for dissemination and adoption of food processing technologies and innovations</li> <li>- To train fruit processors on good food processing practices, product development and food processing entrepreneurship</li> </ul>	Rockefeller Foundation/ Purdue University	University of Nairobi Purdue University, USA Technoserve Kenya Smallholder farmers/ processors	Prof. Jane Ambuko
Adaptation and upscaling of tested and applicable postharvest technologies for smallholder horticultural farmers to reduce postharvest losses	To conduct adaptive research for cold storage technologies and promote their adoption among smallholder farmers and other practitioners in horticultural value chains	National Research Fund (NRF-Kenya)	University of Nairobi KALRO JKUAT Ministry of Agriculture Community Based Organizations	Prof. Jane Ambuko

Project Title	Project Objectives	Funding Institution	Project Partners	PI or UoN Co-PI
Innovations in Post-Harvest Loss and Food Waste Reduction in the Global Food System	Establish the Consortium for Innovation in Postharvest Loss and Food Waste Reduction to advance a common research agenda for gaining efficiencies in global food systems Develop academic and entrepreneurial capacity in the next generation talent	Foundation for Food and Agriculture Research (FFAR)	University of Nairobi Iowa State University, USA Stellenbosch University, South Africa Volcani Institute, Israel	Prof. Jane Ambuko
Capacity building in food security, CaBFoodS-Africa	Create awareness about the problem of high food losses and waste in the food supply chain To train (build capacity) of practitioners in the food supply chain including farmers, traders, transporters on best practices in postharvest management to reduce food losses and waste	UK Research Innovation (UKRI)	University of Nairobi University of Pretoria University of Ghana	Prof. Jane Ambuko
Food Systems Research Network for Africa (FSNet-Africa)	<ul style="list-style-type: none"> <li>- Create structured opportunities for Early Career Research Fellows (ECRF) in the focus countries to conduct impact-focused interdisciplinary research, build lasting research networks and develop their skills to design and implement gender sensitive research with non-academic stakeholders.</li> <li>- Set up carefully matched, formal mentorship relationships between ECRF and established scientists in the UK and Africa to form interdisciplinary research-triads to create long- term collaborations and networks</li> </ul>	UK Research and Innovation (UKRI) Global Challenges Fund (GCRF) Partnership Programme	University of Nairobi University of Pretoria ARUA Partner Universities	Prof. Jane Ambuko – UoN Institutional Champion

Project Title	Project Objectives	Funding Institution	Project Partners	PI or UoN Co-PI
Solar Powered Cold Food Chains for Food Waste Reduction and Value Addition (SolCool)	<ul style="list-style-type: none"> <li>- Create structured opportunities for Early Career Research Fellows (ECRF) in the focus countries to conduct impact-focused interdisciplinary research, build lasting research networks and develop their skills to design and implement gender sensitive research with non-academic stakeholders.</li> <li>- Set up carefully matched, formal mentorship relationships between ECRF and established scientists in the UK and Africa to form interdisciplinary research-triads to create long-term collaborations and networks</li> </ul>	Innovate UK	University of Nairobi Phase Change Material Products Ltd Tanzania Horticultural Association Ltd Brunel University London	Prof. Jane Ambuko
Evaporative Cooling Technologies for Vegetable Preservation in the Kenya	Evaluation of various materials and designs in evaporative cooling technologies to optimize performance in preservation of postharvest quality of vegetables	Massachusetts Institute of Technology, USA	D-Lab Massachusetts Institute of Technology	Prof. Jane Ambuko/ Dr. Duncan Mbuge
Harnessing the genetic resources of Sorghum ( <i>Sorghum bicolor</i> L) in Kenya to improve drought tolerance and Striga resistance of farmer preferred cultivars for climate change adaptation by utilizing innovative genomic, value chain and participatory approaches	<ul style="list-style-type: none"> <li>- To conserve and exploit the biodiversity of wild relative genetic resources of sorghum</li> <li>- To identify striga resistance and drought tolerance genes by use of genomic technologies and transfer Striga resistance and drought tolerance genes from wild relatives into cultivated farmer</li> <li>- To strengthen the existing sorghum value chains, improve processing methods and promote innovative and diversified sorghum product</li> <li>- To enhance stakeholder capacity to produce, process and market sorghum through innovative participatory approaches and avail information</li> </ul>	NRF	KU, ICRISAT, KALRO	K NGUGI

Project Title	Project Objectives	Funding Institution	Project Partners	PI or UoN Co-PI
Validation Of Climate-Smart Sorghum Technologies For Increased Productivity And Improved Livelihoods	<ul style="list-style-type: none"> <li>- To validate and promote Climate Smart sorghum technologies</li> <li>- To validate and promote diversified sorghum based products.</li> <li>- To validate and promote pre- and post-harvest loss reducing technologies.</li> </ul>	Kalro-World Bank	Egerton University	K. Ngugi
Cassava Sustainable Advancement & Nurturing by discovery of Disease Resistance Alleles	<ul style="list-style-type: none"> <li>- Identification and characterization of natural virus resistance in the cassava germplasm</li> <li>- Characterization of genes conferring natural resistance against cassava geminiviruses</li> <li>- Development of methods for on field sanitation of cassava seeds</li> <li>- Implementation of results in the cassava seed system and dissemination to farmers</li> </ul>	EU	University de Liege-Belgium University of Witwatersrand, SA INRA-France	Prof Herve Vander Schuren
Validation and promotion of integrated climate-smart green gram technologies for improved livelihoods in Kenya	<ul style="list-style-type: none"> <li>- To validate and disseminate adoption of farmer and market-preferred green gram varieties</li> <li>- To validate and promote integrated soil water harvesting and conservation practices</li> <li>- To validate and promote integrated soil fertility management practices</li> <li>- To validate and promote proven and sustainable IPM technologies for key pests and diseases</li> <li>- To validate and disseminate appropriate post-harvest handling and value addition technologies</li> </ul>	World Bank	UoN KALRO	Dr. Onesmus Kitonyo

Project Title	Project Objectives	Funding Institution	Project Partners	PI or UoN Co-PI
Improving Farm Profitability and Household Incomes of Mango Farmers in Kenya with Silicon	<ul style="list-style-type: none"> <li>- Optimize the silicon treatment effect by investigating whether combined soil and foliar application can improve on pathogen resistance, fruit yield and quality.</li> <li>- Understand the fate of the applied silicon in the mango plant.</li> <li>- Evaluate consumer acceptability and market competitiveness of the harvested fruits.</li> </ul>	GCRF	UoN University of Cambridge	Co-PI's Dr Kitonyo Dr Nzuve Dr Kilalo Prof Miano
Synergy for mass propagation of elite <i>Melia volkensii</i> clones and exploiting its derived bio pesticides.	Develop a good rooting system and reducing losses during acclimatization of elite clones and indigenous hardwood tree	Government of Belgium	University of Gent, University of Nairobi, Kenya Forestry Research institute, Better Globe Forestry (BGF)	Prof. Florence Olubayo

## Staff Portfolio

Designation	Number of Staff
Professor	12
Assoc. Prof.	6
Senior Lecturer	3
Lecturer	6
Chief Technologist	1
Senior Technologist	8
Technologist	7
Secretary	2
Asst. Tech	1
Subordinate	4
Office Asst.	1
Stores Clerk	1
Seed Tech.	1
Office Asst.	1
<b>Total</b>	<b>54</b>

## Any Other Pertinent Information/Issue in the Year 2020

1. The Department implemented online teaching and learning at all levels during the year.
2. For the first time, all the examinations were processed and administered online.
3. The Department lost one academic staff through death during the year.

## Corporate and Community Outreach Activities

Activity	Focus Area	Date	Documentation
Mang'u Career Fair 2020 Dr. J. Cheboi	Promotion of Departmental programmes	8 <sup>th</sup> February 2020	Certificate of participation
Strengthening African Food Processors (SAP) project	Training of smallholder farmers, processors and entrepreneurs	20 <sup>th</sup> - 21 <sup>st</sup> February 2020	Signed attendance list
High avocado fruit quality	Promotion of good avocado quality	2020	Write up
Prof. Olubayo: spearhead on alumni for Horticulture in Kenya and Research Consortium	Horticultural waste management	2020	Published report
Prof. Miano: GM Cassava talk	Genetically modified cassava	May 2020	Webinar advertisement
Strengthening Kenyan Small-scale Mango Processors to Access Market and Reduce Losses (SAP) Project	Training for Kawala Horticultural Farmers from Makueni County	Collaboration between University of Nairobi (UON) and Purdue University (USA)	Food Processing Hub, CAVS 2 <sup>nd</sup> and 3 <sup>rd</sup> Feb. 2021
Strengthening Kenyan Small-scale Mango Processors to Access Market and Reduce Losses (SAP) Project	Training traders under the Association of Kenya Mango Traders (AKMT)	Collaboration between University of Nairobi (UON) and Purdue University (USA)	Food Processing Hub, CAVS 28 <sup>th</sup> and 29 <sup>th</sup> Jan. 2021
MoU	Qualibasic Seed Company	Collaboration	Date of Commencement 16 <sup>th</sup> October 2020
Inter-University collaboration	Stellenbosch University	MoU	28 <sup>th</sup> January 2020
Food security under Covid: Technical and legal considerations with a focus on Kenya	Food security	30 <sup>th</sup> April 2020	Webinar advert featuring Prof. Jane Ambuko
Webinar on Genetically Modified Cassava in Kenya	#ThinkCassava	28 <sup>th</sup> May 2020	Webinar advert by Prof. Douglas Miano

## Major Achievements, Challenges and Strategic Projections

Achievements	Challenges	Projections
Increase in research activities	Industrial strikes	Great strides in research activities
Increase in outreach activities and CSR	Delay in delivery of lab materials by suppliers	More CSR and outreach activities
Increase in members with active projects	Renovation of major infrastructure	Faster procurement process
Increase in international students on postgraduate programmes	Replacement of retired staff	Hastened replacement of retired staff/successional plan
Commensurate increase in scientific publications in refereed journals	Inadequate funding	More funding
Increase in the number of scientific publication in refereed scientific journals	Some students publishing their research in very low impact factor journals	Encourage and target high impact journals
Increase in number of postgraduate students opting to register for ODeL mode in postgraduate programmes	Low completion rate for students registered under ODeL	Revise the ODeL schedules and approach to supervision of ODeL students
Increase in the number of postgraduate students' thesis research is supported by funded projects	Delay in postgraduate students in completion of thesis research	Schedule of postgraduate seminars for tracking student progress in research

### Projections

1. To utilize 100% of the allocated funds
2. To grow the Departmental resource base by increasing academic revenue by 10% annually.
3. To hold at least six student mentorship sessions for students.
4. To participate in at least 10 outreach activities.
5. To increase departmental openness and presence on the website by 10%.
6. To establish at least two multi-stakeholder projects annually.
7. To increase postgraduate students completion rate by at least 10%
8. To implement and promote Open and Distance Learning (ODeL) for all postgraduate training programmes.
9. To review at least six (6) curricula during the year



# Department of Veterinary Anatomy and Physiology

## Introduction

The Department of Veterinary Anatomy and Physiology is a preclinical department located in Chiromo Campus along Riverside Drive, off Chiromo Road, 2 kilometers west of the Main Campus. The Department is the product of the notable merger of the two of the oldest and well-known departments in the Faculty of Veterinary Medicine –Veterinary Anatomy and Animal Physiology that occurred in 2005. The two departmental units had their origin within the establishment of the Faculty of Veterinary Medicine and were transferred from Makerere University College to the Royal College Nairobi in 1962. Veterinary Medicine and Wildlife Management students are prepared for various fields in the Veterinary Anatomy and physiology in the Department.

The Department teaches preclinical veterinary students Animal Physiology and Veterinary Anatomy. It offers courses to **BSc Wildlife students** specifically Veterinary Anatomy, Ecophysiology, Ornithology, Ichthyology, Herpetology and Wildlife Behavior. The Department also offers undergraduate courses to the Faculty of Agriculture and College of Health Sciences (*BSc. Biochemistry*). Postgraduate service courses are offered to the Department of Animal Production and the School of Biological Sciences (**MSc. Biology of Conservation**).

The Department instructs in the biomedical sciences related to animal anatomy and physiology. It also trains students in basic anatomy and physiology in the degree programs leading to Bachelor of Veterinary Medicine (BVM), Bachelor of Science in Agriculture, Range Management and Food Science and Technology (BSc. Agric.), BSc. Range Management, BSc. Food Science and Technology, Bachelor of Science in Biomedical Technology (BSc. BT), Bachelor of Science in Wildlife Management, and Conservation, Tourism Management, Fisheries and Wetlands Management (BSc. Wildlife Management and Conservation, BSc. Wildlife Conservation and Tourism Management, BSc Wildlife Conservation and Wetlands Management and BSc Wildlife Conservation and Fisheries Management. The Department also teaches mammalian histology to students of the BSc Biochemistry degree program and also trains students at post-graduate level in Masters of Science (MSc.).

## Programmes Offered

1. Bachelor of Veterinary Medicine
2. Bachelor of Science in Wildlife Management and Conservation
3. Bachelor of Science in Fisheries and Aquaculture Management
4. Bachelor of Science in Agriculture, Range Management and Food Science and Technology
5. Bachelor of Science in Biomedical Technology
6. Master of Science in Reproductive Biology
7. Master of Science in Veterinary Anatomy and Cell Biology
8. Master of Science in Comparative Physiology
9. Doctor of Philosophy (PhD) in the Faculty of Veterinary Medicine
10. Doctor of Philosophy (PhD) degrees in Anatomical and Physiological Sciences

## Major Achievements in 2020

1. Graduated 3 Masters' Students.
2. Managed to dispose old obsolete and unusable equipment and furniture, for the first time in two decades
3. Managed to promote 3 technologists to Assistant Chief Technologists.
4. Managed two secure three toxicological analysis projects from the industry.

## Staff Portfolio

Designation	No. of Staff
Assistant Chief Technologist	3
Associate Professor	6
Chief Technologist	3
Cleaner	1
Lecturer	9
Principal Technologist	1
Senior Lecturer	4
Senior Technologist	6
Technical Assistant	2
Technologist	1
Trainee Technologist	2
<b>Total</b>	<b>38</b>

## Corporate and Community Outreach Activities

- Establishment of COVID-19 mitigation infrastructure and logistics
- Due to the pandemic, outreach programs were suspended.

## Projections

1. Increase in consultancy activities (both specimen preparation and toxicological analysis).
2. Increase in postgraduate student enrolment.
3. Improved mentorship of undergraduate students.
4. Increase in student progression to the subsequent year of study.

# Wangari Maathai Institute for Peace and Environmental Studies

## Introduction

The Wangari Maathai Institute for Peace and Environmental Studies (WMI) was established in 2009 as a center of excellence in environmental governance and its linkages with peace and democracy. The Institute was established in close collaboration with the 2004 Peace Nobel Laureate, the late Prof. Wangari Maathai. WMI aims to promote good environmental practices and to cultivate a culture of peace by shaping values, ethics and attitudes of its graduates through experiential learning, mentoring and transformational leadership.

## Programmes Offered

In 2020, the Institute offered the following programs:

1. Master of Science in Environmental Governance
2. Doctor of Philosophy in Environmental Governance and Management.

### *Short Course*

3. Environmental Impact Assessment and Environmental Audit Training

## Enrolled Students in Postgraduate Programmes

In 2020, the Institute enrolled thirteen (13) students for Master of Science in Environmental Governance and nine (9) students for Doctor of Philosophy in Environmental Governance and Management.

Out of the 22 students, two (2) were International students.

## Number of Graduates per Programme

In the year 2020, the Institute graduated the following:

Programme	No. of Graduates
MSc. in Environmental Governance	3
PhD. in Environmental Governance and Management	3

## Research Activities Undertaken

Sustainable Land Use and Management Systems (SLUSE 2020)



*Planting trees at Gatugi Primary School, Othaya*

The Wangari Maathai Institute for Peace and Environmental Studies in collaboration with the University of Copenhagen and University of Roskilde, Denmark successfully implemented the 2020 experiential field learning course dubbed, “Sustainable land use management system - (SLUSE),” which is the 8<sup>th</sup> in series after the SLUSE in 2012, 2014, 2015, 2016, 2017, 2018 and 2019. The program was held in Othaya, Nyeri County, from February 28 - March 10, 2020. The SLUSE 2020 covered five (5) thematic areas i.e. Solid Waste Management, Crop Insurance, Soil fertility, Tea Certification and Karima Hill Community Forest. A total of twenty-three (23) students from both University of Copenhagen and Roskilde University and eleven (11) from the University of Nairobi-Wangari Maathai Institute were involved in the SLUSE 2020. A policy brief on “*Solid waste governance approaches to reduce conflicts and promote human and environmental health in Othaya Sub-County*” was produced by the group whose theme was solid waste management supervised by Prof. Mungai, Prof. Müller-Stöver and Dr. Karatu.



*Students from the WMI-UoN, University of Copenhagen and Roskilde University, Denmark together with the supervisors during the SLUSE 2020 Closing ceremony on March 11, 2020*

The Wangari Maathai Institute for Peace and Environmental Studies in conjunction with a representative from Tharaka Nithi County successfully conducted environmental sustainability-situational analysis in the County. The objective of the collaboration was to seek solutions towards achieving sustainable livelihoods through Integrated Environmental Restoration in the County. The institute appreciated the County for the collaboration and hoped to continue working together towards achieving the objective.

## **International Linkages and Collaborations**

### **1. Visit by Senior High School Students from Linnankoski, Porvoo, Finland - 10/1/2020**

The students were accompanied by Prof. Petri Pellika and their three teachers. The team was received by the Director, Prof. David Mungai. He gave them a lecture on climate change and its impacts particularly in Kenya/Africa. The visiting students were taken on a tour of the Campus which emphasized the various experiential learning platforms.



*Senior High School Students from Finland Visiting the Institute on 10/1/2020*

### **2. Visit by a Team of Scholars from Trent University, Canada - 14/1/2020**

The team was led by Prof. Neil Emery, Vice President (Research). With the team was the Vice Chancellor, Prof. Stephen Kiama. The meeting discussed areas of collaboration between the two institutions and the need to have a MoU.

3. 9<sup>th</sup> February, 2020: The Vice Chancellor (Prof. Stephen Kiama) led a high-level team from the University of West Indies, Caven Hill which was led by the Prof. Vice Chancellor, Prof. Eudine Barribeau. Accompanying the team were senior officials from the Ministry of Education and Ministry of Foreign Affairs. The Vice-Chancellor was accompanied by the Principal, CAVS, Principal, CHS and the Deans the College of Agriculture and Veterinary Sciences. The meeting discussed areas of potential collaboration in teaching, research and students/staff exchange between the University of Nairobi and the University of West Indies.



*Prof. Eudine Barriteau receiving a gift from the Vice Chancellor, Prof. Stephen Kiama at the Institute's Boardroom*

**4. Visit to WMI by Ms. Luisa Fragasa - Head of Mission, Portugal - on 25/6/2020**

The Portuguese Head of Mission in Kenya was accompanied by the Vice Chancellor, Prof. Stephen Kiama, Principal, College of Agriculture and Veterinary Sciences and the Principal, College of Humanities and Social Sciences. The meeting explored potential areas of partnership between the University of Nairobi and like-minded Portuguese institutions.

5. The Institute continues to be one of the Centres of Excellence in Earth System Governance Research and Training. It is affiliated to the Earth System Governance Project which is based at the Utrecht University in the Netherlands.
6. The Institute continues to collaborate with the government of Kenya in sponsoring students to do their research under its sponsorship e.g. Kenya Climate Smart Agriculture Project (KCSAP), Kenya Forestry Research Institute (KEFRI) among others.

**7. Mediation Training Workshop at the Wangari Maathai Institute**

The Wangari Maathai Institute (WMI) hosted a mediation training workshop from February 10, 2020 to February 14, 2020. The event was conducted at the Wangari Maathai Peace Laboratory and involved representatives from Kenya Forest Service, Kenya Forest Research Institute and members of the Ngong Hills Forest Community Forest Association. The training was carried out by Professors Vibeke Vindelov, Jens Emborg, Wahome Karanja, Dr. Thuita Thenya and Dr. Joram Kagombe.



*Dr. Karanja Njoroge and Prof. Jens Emborg during in one of the sessions of mediation training workshop, February 12, 2020*

### **Publications and Presentations for the Year**

1. Ang'u, C., Muthama, N.J., Oludhe, C., & Chitedze, I. (2020). The role of diversity, reserve margin and system structure on retail electricity tariffs in Kenya. *Heliyon*, 6(8), e04626.
2. E. Geoffrey, J. Mutune - Kenya Policy Briefs (2020) Revisiting Kenyan's Ban on Plastic Carrier Bags - Where was this submitted?
3. Edema, G.T.E., Karatu, K., & Edward, Aget the name of this author. (2020). An evaluation of the environmental impact assessment practice in Uganda: challenges and opportunities for achieving sustainable development. *Heliyon*, 6(9), e04758.
4. Harmsen, H., Wang'ondy, V.W. Mbau, J.S., & Muthama, N.J. (2020). Randomized hotspot strategy is effective in countering bushmeat poaching by snaring. *Biological Conservation*, 253, 108909.
5. Kumunga, E., Ndiwa, T.C., & Nzioka, J.M. (2020). Towards a framework for monitoring and communicating water resources sustainability: A case study of Rwamuthambi Sub Catchment area, Kenya. *Journal of Sustainability, Environment and Peace*, 3(1), 21-33.
6. Manoa, D. O., Mwaura, F., Thuita, T., & Mukhovi, S. (2020). A Review of the Visible and Hidden Opportunity Costs of Human-Wildlife Conflict in Kenya. *J. Biodivers Manage Forestry* 9, 2, 2.
7. Mwakesi, I.W., Wahome, R.G., & Ichang'i, D.W. (2020). Mining Impacts on Society: A Case Study of Taita Taveta County, Kenya. *Journal of Environmental Protection*, 11(11), 986-997.
8. Mwakesi, I., Wahome, R., & Ichang'i, D. (2020). Mining impact on communities' livelihoods: A case study of Taita Taveta County, Kenya. *AIMS Environmental Science*, 7(3), 286-301.
9. Togoch, H.K., Irandu, E., M., & Thenya, T. (2020). Patterns of Livelihood Diversification among Kamnarok National Reserve Adjacent Communities in Baringo County, Kenya. *Journal of Sustainability, Environment and Peace*, 3(2), 55-62.

### **Papers Presented at Conferences/Workshops**

The Institute has held several webinars despite the Covid 19 Pandemic. The key ones include:

1. Prof. Stephen Kiama; Webinar, "My Reflections of Prof. Wangari Maathai"; Part of UoN at 50 Celebrations, the Wangari Maathai Institute Held on November 4, 2020.
2. Cohen Ang'u, Conference on "Role of Energy Sources on Rural Electricity Tariffs in Kenya", Held between October 21- 23, 2020.
3. Prof. Nzioka John Muthama, Conference on "Women, Climate Change Indoor Environmental Quality and Covid- 19 Pandemic" held on October 14- 16, 2020
4. Prof. David N. Mungai, attended a Planning Workshop on: "Green Infrastructure for Sustainable Urban – Rural Development in Kenya (GI4SURD)" held on October 9, 2020.

5. Prof. Nzioka John Muthama; Conference Presentation; Transition to Green Growth in KENYA: Horticultural Productivity, Fuel Consumption and Short lived Climate Pollutant Nexus Held on October 5- 7, 2020.
6. Prof. Kahuziko Takeuchi; “Establishing a decentralized and connected society for localizing SDGs in the Face of Covid 19” held on September 23, 2020.
7. Muthama J. Nzioka. International Virtual Symposium on “Climatological, Meteorological and Environmental Factors in then COVID 19 Pandemic” held on 4<sup>th</sup> to 6<sup>th</sup> August, 2020.
8. Thuitha Thenya; Webinar on “Revival of Efforts for Nomination of Mt. Elgon as Transboundary Biosphere Reserve” held on July 2020.
9. Cohen Ang’u; 14<sup>th</sup> Kenya Meteorology Society International Conference on “Energy Resources Resilience Approach to Modeling Electricity in Kenya” held between April 28-30, 2020.
10. Prof. David N. Mungai; Webinar on “Earth Day, Citizen Action Towards Securing our Future”, held on April 16, 2020.
11. Prof. J. Muthama; Workshop on “Satellite and Weather information for Disaster Resilience in Africa” held between January 6- 8, 2020 in Addis Ababa, Ethiopia.

## Staff Establishment

In 2020, the Institute had the following staff members including affiliated staff from other Departments.

Designation	No. of Staff
Associate Professor	5
Senior Lecturer	3
Lecturer	7
Tutorial Fellow	4
Graduate Assistant	2
Senior Admin. Assistant	1
Cleaner	1
Secretary	1
<b>Total</b>	<b>25</b>

## Corporate Social Responsibility and Outreach Activities

### 1. Tree Planting Exercise

The University Management tasked the College of Agriculture and Veterinary Sciences to lead this noble initiative. The Wangari Maathai Institute for Peace and Environmental Studies coordinated this initiative through identification of appropriate sites and overall coordination including data management (area afforested, number of trees and spp., assessment of survival rates etc.). The College involved various stakeholders in the tree planting exercise, including the Green Belt Movement, Acorn Holdings (Qwetu Residences), Workmate (Virtual Jobs Finder), Hultz Prize UoN Campus, KEFRI and Dedan Kimathi Foundation. Twenty-one fruit trees comprising of *Macadamia Integrifolia* and *Perseaamericana* (Avocado) were planted at the Wangari Maathai Institute (WMI) and 3,000 tree seedlings at Kanyariri Vet. Farm. The exercise was led by Prof. Rose Nyikal, Principal, College of Agriculture and Veterinary Sciences (CAVS). Also present were Prof. David Mungai, Director WMI, and Prof. Moses Nyangito, Ag. Dean, Faculty of Agriculture and Johnson Ireri Kinyua, Dean of students. The event took place on November 20, 2020.





*Prof. Rose Nyikal (Principal, College of Agriculture and Veterinary Sciences) assisted by Mr. Timona Onyango plants a fruit tree seedling (grafted avocado) at the Wangari Maathai Institute on 20<sup>th</sup> November, 2020. Also present were Prof. David Mungai (Director, WMI), Prof. Moses Nyangito (Ag. Dean, Faculty of Agriculture) and other stakeholders.*



*Tree planting exercise at the Kanyariri Vet Farm on 20/11/2020*

2. The Wangari Maathai Institute in collaboration with the Green Belt Movement hosted a webinar on “Earth Day 2020: Citizen Action towards Securing Our Future” held on April 16, 2020 from 3pm.
3. The Wangari Maathai Institute for Peace and Environmental Studies, University of Nairobi (WMI, UoN) in collaboration with the University of Copenhagen (UC) and University of Roskilde (UR), Denmark conducted an outreach and extension programme on “Solid Waste Management in Othaya Town and Environs in Gatugi, Nyeri”, between February 27, 2020 and March 10, 2020. This was led by Prof. Mungai, Dr. Kiemo, Associate Prof. Müller-Stöver; A policy Brief “Solid waste governance approaches to reduce conflicts and promote human and environmental health in Othaya Sub-county” was produced.
4. The WMI in collaboration with the UC and UR, Denmark conducted an outreach and extension programme on “Soil Fertility and Water Management in Thuti, Nyeri” between February 27, 2020 and March 10, 2020. This was led by Dr. Onyango and Associate Prof. Müller-Stöver.

5. The WMI in collaboration with the UC and UR, Denmark conducted an outreach and extension programme on Crop insurance scheme for maize in Kianganda, Nyeri between February 27, 2020 and March 10, 2020. This was led by Dr. Mutune, Prof. Muthama, and Associate Prof. Christian P. Hansen.
6. The WMI in collaboration with the UC and UR, Denmark conducted an outreach and extension programme on Certification of tea in Gatuya-ini, Nyeri, between February 27, 2020 and March 10, 2020. This was led by Dr. Kiemo and Associate Prof. Christian P. Hansen.
7. The WMI, UoN in collaboration with the UC and UR, Denmark conducted an outreach and extension programme on Karima Hill community forest in Gakina, Nyeri, between February 27, 2020 and March 10, 2020. This was led by Dr. Thenya and Associate Prof. Christian P. Hansen.
8. WMI conducted a mentorship outreach at Gatugi Primary School, Othaya, Nyeri County on March 3, 2020 during SLUSE.
9. WMI co-hosted Green Belt Movement in the celebration of the African Environmental Day/Wangari Maathai Day March 3, 2020.
10. WMI co-hosted Conflict Mediation Training with Kenya Forest Service, Kenya Forest Research Institute and members of Ngong Hills Forest community service on February 14, 2020.

## **Major Achievements, Challenges and Strategic Projections**

### **Major Achievements**

Completion and occupation of the WMI Campus

### **Challenges**

The year 2020 was encumbered with the COVID-19 Pandemic, which made it impossible to undertake some research activities/collaborative activities like the PACJA initiative.

### **Strategic Projections**

The occupation of WMI building especially the business center, this will provide income for further expansion of the WMI.

# College Architecture and Engineering

## School of Arts and Design



*Sheep grazing in the Giken Dumpsite (March 1, 2020)*

### Introduction

The School of The Arts and Design (StAD) is a constituent School of the College of Architecture and Engineering (CAE) and is situated in the ADD Building, off State House Road, Nairobi. The School offers two degree programmes namely Bachelor of Arts in Design and Bachelor of Interior Design. The two degree programmes are offered over a four year period. BA in Design students specialize in one of the four areas of Graphic, Interior, Product,

Fashion and Textiles and Illustration design. The training is offered as a mix of lectures, individual discovery, studio practice and theory. These are complimented by industry exposure and visiting professional persons. StAD has a strong faculty with diverse specializations supported by technical and support staff serving a student population of over 400 that includes postgraduate and PhD students.

Design has experienced increased demand from consumers, the building sector and manufacturing, because it is an enabler for better products, services and systems. People need aesthetic products, universal design in the environments, sustainable design practices and healthy products and services. Design services are crosscutting in every sector of the economy for example, medicine, agriculture, tourism and small, medium and large firms. When combined with other factors of production and distribution, design innovation and entrepreneurship can contribute significantly to the country's industrialization.

The students and staff actively participate in local and international forums. Some of the international collaborators are Loughborough Design School, University Leicester, Zurich School of the Arts, the Oslo School of Architecture and Design and Cape Peninsula University of Technology (CPUT). Within the eastern Africa region, the School has partnered with Makerere University, Kyambogo University and Kwame Nkurumah University of Science and Technology (KNUST). The School has held conferences, workshops and seminars in collaboration with government, alumni, NGOs, and co-hosted the Africa Design Day (February 22, 2021) conference and exhibition.

The StAD strategy is to continue to provide quality services in design training, research, extension and consultancy. It shall continue to expand its scope and networks through opening up of communication channels and increasing use of open and distant learning platform.

## Programmes Offered

The School of the Arts and Design offers the following Programmes:

### Programmes

- i) Bachelor of Arts (Design)
- ii) Bachelor of Interior Design (BID)
- iii) Masters of Arts (Design)
- iv) PhD (Design)

## Student Enrollment in 2020

In September 2020, the School admitted 90 students in various programmes as shown below:

Course	Admissible	Admitted	Variance
B.A. (Design) Module I	47	29	18
B.A. (Design) Module II	10	6	4
BID Module I	50	34	16
BID Module II	18	13	5
M.A. Design	12	8	4
<b>Total</b>	<b>137</b>	<b>90</b>	<b>47</b>

## Student Population

The student population at the school in the academic year 2019/2020 was 369 spread as shown in the table.

Year	Course	Module 1	Module II	Total Undergraduates	Masters	PhDs	Int. Students
Year I	BA Design	29	6	35	8	5	Nil
Year II	BA Design	51	15	66	9		1
Year III	BA Design	39	13	51	N/A		Nil
Year IV	BA Design	39	13	52	N/A	N/A	Nil
Year I	BID	34	14	48	N/A	N/A	Nil
Year II	BID	45	15	60	N/A	N/A	4
Year III	BID	N/A	17	17			
Year IV	BID	N/A	18	18			
<b>Total Number of Students in 2020</b>			<b>347</b>		<b>17</b>	<b>5</b>	<b>5</b>

## International Student

- The total number of undergraduate students was 347 and the total number of international undergraduate students was five (5).
- There were no international postgraduate students
- The percentage component of international student at the school is  $5/347 \times 100 = 1.4\%$ .

## Number of Graduates Per Programme

In the year 2020, the School graduated 91 students as indicated in the table below:

Programme	Graduands
Bachelor of Arts (BA - Design)	87
Bachelor of Interior Design (BID)	0
Masters of Arts (MA - Design)	3
PHD	1
<b>Total</b>	<b>91</b>

## Major Achievements

### Research Activities

1. The School won a research grant worth €20,000/- to conduct a research entitled “Informing energy futures through lessons from science-policy-society interactions case studies in Kenya, Uganda and South Africa”. The lead principal researcher is Dr. Lorraine Amollo.
2. The School won a research grant worth Kshs. 13m to conduct a research and provide consultancy services to undertake investigation into local production/manufacture of affordable ceramic fittings to support affordable housing in Kenya. The lead researcher is Dr. Lilac Osanjo.

### Policy Brief

In January 2020, the School produced a policy brief.

**“A case for providing electricity subsidies in urban informal settlements”** January 2020

### Performance Contract

The School emerged number one (1) in performance contract category of Schools without departments.

### Consultancy

The School undertook a consultancy in 2020 with the Export Promotion and Branding Agency (KEPROBA) in product development for Small and medium enterprises focusing on exports. The enterprises included apparel, tea, chilli, avocado producers among others.

Institution(s)	Detail
Export Promotion and Branding Agency	Training Micro enterprises on product development by Dr. Lilac Osanjo, Ms. Julia Kamuiru and Ms Nkatha Kiruki.

## International Links and Collaborations

The School established three links with other institutions.

Link	Type
University of West Indies, Barbados	Established academic relations in order to promote direct co-operation and communication in the field of Art and Design and related disciplines. The School shared with them the Graphic design syllabus.
Science Council	Informing energy futures through lessons from science-policy-society interactions
Ministry of Transport, Infrastructure, Housing and Public works. State Department of Public Works.	Consultancy Services in affordable ceramic fittings for affordable housing

## Publications for the Year

In 2020, the School had eleven (11) journal publications produced.

Author	Title	Journal	Month & Year
Ms. Betty Mwiti	Bottom-up approach: A community intervention in fighting non communicable diseases in urban informal settlement in Kenya	East Africa medical journal	April, 2020
Dr. Lorraine Amollo	Exploring the dynamic of social networks in urban informal settlement: The case of Mathare valley, Kenya	Springer	June, 2020
Dr. Lilac Osanjo	Thinking Through the Growth of The Fashion Design Industry in Kenya	Africa Habitat review	August, 2020
Mr. Mike Kemboi Chesaro	Waste Minimization Strategy for Sustainable Interior Design	Africa Habitat review	August, 2020
Mr. Daniel Munyaga Macharia	Enhancing Visual Aids in Training of Child Caregivers in Daycares Within Nairobi's Urban Informal Settlements	Africa Habitat review	August, 2020
Mr. Ignatius Wambugu Rukwaro	Graffiti Artists in East Africa	Africa Habitat review	August, 2020
Dr. Samuel Maina	Graffiti Artists in East Africa	Africa Habitat review	August, 2020
Mr. Collins Makunda	Waste Minimization Strategy for Sustainable Interior Design	Africa Habitat review	August, 2020
Dr. Samuel Maina	Waste Minimization Strategy for Sustainable Interior Design	Africa Habitat review	August, 2020

Author	Title	Journal	Month & Year
Dr. Lilac Osanjo	Enhancing Visual Aids in Training of Child Caregivers in Daycares Within Nairobi's Urban Informal Settlements	Africa Habitat review	August, 2020
Dr. Betty Mwiti	Enhancing Visual Aids in Training of Child Caregivers in Daycares Within Nairobi's Urban Informal Settlements	Africa Habitat review	August, 2020

## Corporate and Community Outreach Activities

The School designed the logo for “University of Nairobi@50”, logos and branded packaging materials for various tea factories around the country.

The School is undertaking a research on renewable energy in Mathare slums led by Dr. Lorraine Amollo.

## Staff Portfolio

The following is the staff portfolio for the School:

Designation	No. of Staff
Senior Lecturer	2
Lecturer	3
Tutorial Fellow	5
Asst. Lecturer	1
Graduate Assistant	2
Technologists	8
Senior Administrative Assistant	1
Secretary	2
Registry Clerk	1
<b>Total</b>	<b>25</b>

## Strategic Projections

The strategic projection of the School includes:

1. Attracting grants projects to support the growth of the School.
2. Continue to grow the School journal as an avenue for disseminating research findings and innovations.
3. Attract professionals and industry to participate in the implementation of the syllabuses.
4. Grow the numbers of students especially in the postgraduate programmes.
5. Empower the School community in adoption of online teaching and management.

## School of the Built Environment

### Department of Architecture and Building Science

#### Introduction

The Department of Architecture & Building Science is the Leading Centre of Professional Training in Architecture in East and Central Africa. Our mission is to train high caliber professionals in the discipline of Architecture through teaching, research and consultancy.

Founded in 1956, the Department of Architecture was at first the only Department of the Faculty of Architecture, which later became the Faculty of Art and Architecture of the Royal Technical College of East Africa.

#### Programs Offered:

- |  |                                |
|--|--------------------------------|
| i) Bachelor of Architectural Studies (BAS) | iv) Master of Urban Management |
| ii) Bachelor of Architecture (BArch)       | v) PhD                         |
| iii) Master of Architecture (MArch)        |                                |

#### Enrollment

- |   |                                      |
|---|--------------------------------------|
| i) Bachelor of Architectural Studies (BAS)? | iv) Master of Architecture (M.Arch)? |
| ii) Bachelor of Architecture (B.Arch)?      | v) PhD?                              |
| iii) Master of Urban Management (MUM)?      |                                      |

#### Strategic Issues

##### 1. Degree Programmes/Curriculum

##### Bachelor of Architectural Studies (BAS)/Bachelor of Architecture (B.Arch)

Currently the Department of Architecture offers a two-tier degree programme. The 6 year Bachelor of Architecture course was replaced with a 4yr + 2yr structure with the first four years leading to a Bachelor of Architectural Studies degree (B.A.S.) and a further two years leading to Bachelor of Architecture (B.Arch.). The curriculum adopted the concept of electives. Out of these are crafted areas of in-depth study in non – core areas of knowledge. These in-depth study areas are within the first tier of the course.

Strengths	Weaknesses	Opportunities
<ul style="list-style-type: none"> <li>Flexibility of graduating after 4 years with a BAS degree, allowing students to practise in a wide-range of non-design areas of the profession and, within a limited scope, to also engage in design.</li> <li>BArch (Year 5 &amp; 6) offering, is equivalent to an MArch Degree, but with the benefit of funding for Government sponsored students which is only tenable for Undergraduate studies</li> </ul>	<ul style="list-style-type: none"> <li>BAS level currently does not receive any recognition from accreditation institutions such as BORAQS.</li> <li>BArch graduates see little or no value in pursuing a MArch Degree from the Department, and as such the enrolment for postgraduate studies is generally low.</li> </ul>	<ul style="list-style-type: none"> <li>Recognize each stage of the curriculum in the national accreditation system by BORAQS</li> <li>Beef up the 2-tier system, by including an internship program in the interim of BAS &amp; BArch Degrees.</li> <li>BArch (Year 6) Curriculum should focus on resolving fundamental design problems akin to Practice/Industry demands.</li> </ul>



## Master of Architecture (M.Arch)

The Department of Architecture offers a two year Postgraduate Master of Architecture Programme. The programme comprises coursework, studio projects, examination and thesis with specialization in the following areas: 1) Architectural Design 2) Environmental Design 3) Building Technology 4) Landscape Design and 5) Urban Design.

**Opportunities:** MArch Degree curriculum should be expanded to resolve research and innovation in specialized fields such as Conservation Practice, History & Theory of Architecture, Industrial Design, etc.

## Master of Urban Management (MUM)

The Department of Architecture offers a two year Postgraduate Master of Urban Management Programme. The programme is intended to provide the requisite solid and balanced academic teaching (theory + research) and professional and practical training relevant to urban management in Kenya and the East African region. The course enrolls candidates from various educational and occupational backgrounds relating to urban development.

## Teaching and Learning

### Lectures

Lectures are administered for thematic theory courses for core areas of the architectural field.

### *Architecture Design Studios*

This is the core subject in the architectural course and is administered in 'Studio' spaces. All other supporting theory coursework is normally organised to provide contributions towards effective Design Studio learning. The key components of the Design studio include:

- **Practical Student-centred Learning** - Design studio is meant to provide students with expertise and knowledge necessary in order to produce innovative, creative and competent design solutions. The main objective of the Design studio is to develop students' imagination in design and allow them to produce architectural designs that balance between creative, critical and pragmatic thinking.
- **Exhibition-style Presentations** - Students express their architectural ideas through a myriad of communication techniques and methods including free-hand drawings, physical models, computer models, photography, video clips and oral presentations during interim studio presentations
- **Co-teaching/Teaching Panels** - Design Studio sessions are administered through a 1:10 teacher-student ratio. The benefit of co-teaching is that educators work together to plan, organize, evaluate and instruct the students providing a range of ideas/solutions. Students benefit from diverse expertise and panel consensus.
- **Desk-crits** - are one-on-one (teacher-student) instruction activities that increase the opportunity to differentiate student needs.

### *Examinations*

- Examinations are held in line with the Common Examination Regulations of the School of the Built Environment as approved by the University Senate.
- Examinations shall consist of written papers, projects, studio and portfolios.
- All course units, except projects, studio and portfolios, shall be examined during the semester in which they are taken. Such examinations shall consist of continuous assessment, course tests and end of semester examinations. The end of semester examinations shall account for 70% of the total marks, while continuous assessment and course tests, shall account for 30%.
- All first semester examinations shall be School examinations and shall be approved by the School Academic Board.

## Portfolios and Research Projects

All studio and portfolio examinations in the 2nd, 3rd and 5th years of the BAS/BArch degree course shall be conducted at the end of the academic year in which they are taken and shall in each case be equivalent to six course units.

All studio/portfolio examinations in the 1st, 4th and 6th years of the BAS/BArch degree course shall be conducted at the end of the academic year in which they are taken and shall in each case be equivalent to eight course units.

Research projects for the 6th year of study for BArch are submitted by the last day of written examinations and constitute four course units. Research projects shall be examined at the end of the academic year.

Panel Examinations & Peer-Group Reviewers- All studios and portfolio examinations are examined through a panel consensus and peer-group reviewers for 6th Year graduating class

### *Mentorship*

There is an active culture of mentorship for students by a teaching staff that is actively involved in architectural practice. This is achieved by way of class visits to construction sites, and individual apprenticeship during school breaks. Additionally the BArch (Year 6) project involves one-on-one supervisions between student and teacher.

### *Internship*

Though optional, a large number of students undertake internship programs in architectural firms during school holidays. This greatly contributes to the unique learning process and should be reviewed. The Department should be more proactive in facilitating student placement.

## Major Achievements

Date	Item	Remarks
December 11, 2020	Graduation of 4th and 6th year students who had supplementary /special examinations	Supplementary/special examinations were conducted and students were able to graduate.
November 30 to December 8, 2020	Supplementary/Special examinations	Supplementary/special examinations conducted successfully face to face.
November 9, 2020	Blended learning commenced for all years.	Learning for all years both face to face and online commenced and is progressing on well.
September 21, 2020	Online teaching and learning commences for First Year students	Teaching commenced as scheduled and progressed well.
September 25, 2020	Graduation of 4th, 6th and Masters students	Master of Architecture, Master of Urban Management graduated as well as 4th and 6th year students who graduated with Bachelor of Architectural Studies and Bachelor of Architecture respectively.

Date	Item	Remarks
September 14-25, 2020	Online theory examinations	Theory examinations for all years and Masters were conducted successfully online.
September 7 - 5 October, 2020	Face to Face Portfolio examinations for 1st, 2nd, 3rd, and 5th year students	The examinations were conducted successfully face to face.
July 21 to August 10, 2020	Portfolio examinations for graduating years	The examinations were conducted successfully face to face.
February 2020	Publication of a book and an International Exhibition at the Guggenheim Museum in New York showcasing work by our department amongst 5 other international universities from February 2020.	Several members of staff and students in the department participated.
February 9-16, 2020	4th year annual study trip to the Kenya Coastal Strip (Mombasa)	Annual academic trip to Mombasa for 4th year portfolio project.
February 3-8, 2020	3rd year field trip to Voi, Taita Taveta County	Annual academic trip to Voi for 3rd year portfolio project.
February 8, 2020	Mangu High School Career Fair	The department set up an exhibition tent which included brochures for courses offered in the School, student model showcasing a final year project, projector and screen displaying final year works from Architecture students.
January 29, 2020	2nd year academic trip to Machakos University	2nd year tour of Machakos University to design a Students' Centre.
January 6, 2020	Commencement of 2nd semester 2019/2020 learning.	Learning commenced for year 1-6, Master of Architecture and Master of Urban Design.

### Corporate and Community Outreach Activities

Date	Item
February 2020	Publication of a book and an International Exhibition at the Guggenheim Museum in New York showcasing work by our department amongst 5 other international universities from February 2020.
February 9-16, 2020	4th year annual study trip to the Kenya Coastal Strip (Mombasa)
February 3-8, 2020	3rd year field trip to Voi, Taita Taveta County
February 8, 2020	Mangu High School Career Fair

## Staff Portfolio

Designation	No. of Staff
Professor	4
Associate Professor:	1
Senior Lecturer:	6
Lecturer	20
Assistant Lecturer:	1
Tutorial Fellow:	9
Chief Technologist:	1
<b>Total</b>	<b>42</b>

## Projections

Date	Item
August, 2021	Annual E.A. Architecture Workshop and Exhibition
August, 2021	Basco Awards of Excellence
March - April, 2021	Annual 4th year academic trip to Mombasa
March, 2021	Annual 3rd year academic trip to Voi, Taita Taveta County

## School of Engineering

### Department of Electrical and Information Engineering

#### Introduction

The Department runs BSc, MSc. and PhD. programs in Electrical and Electronic Engineering. The undergraduate BSc. program consists of five years of study, and contributes to knowledge in both fundamental and applied areas of Electrical Engineering. It provides a diverse curriculum that instills in our students the skills, talents and creativity necessary for the varied and rapidly changing requirements. This enables them to serve a wide variety of other fields that require leadership, teamwork, decision making and problem solving abilities.

#### Student Enrolment

Undergraduate	Masters	PhD
514	16	16

#### International Students

Programme	No. of Students
Undergraduate	6
Masters	2
<b>Total</b>	<b>8</b>

#### Numbers of Graduands

Programme	No. of Students
Undergraduate	60
Masters	4
PhD	1
<b>Total</b>	<b>8</b>

#### Six Students Attained a First Class Honours

#### Research Publications

Some of the reported publications and conference presentations are listed below.

Authors	Title	Journal	Date
Ronoh Kennedy, Kamucha George	Comparison of Hybrid Firefly Algorithms for Binary and Continuous Optimization Problems in a TV White Space Network	WSEAS Transactions on Communications, Vol. 19, pp. 155-172, 2020	Oct 2020
Henry Kiragu, Elijah Mwangi and George Kamucha	An Efficacious MRI Sparse Recovery Method Based on Differential Under-Sampling and k-Space Interpolation	Proceedings of 20th IEEE Mediterranean Elettrotechnical Conference (IEEE MELECON 2020), pp. 382-387, Palermo, Italy	Jun 2020
Stephen Kiambi, Elijah Mwangi, George Kamucha	A Low-Complexity Signal Addition Method for PAPR Reduction in OFDM Systems	International Journal of Computer Application, Vol. 5(10), pp. 21-34, 2020.	Oct 2020

Authors	Title	Journal	Date
Peter Musau Moses,	Metaheuristic-based Adaptive Hybrid Algorithm for solving Constrained Optimization Problems	European Journal of Advances in Engineering and Technology 2020, 7(6):57-65, Volume 7 Issue 6	2020
Jackson Mwangi Mbuthia	Metaheuristic-based Adaptive Hybrid Algorithm for solving Constrained Optimization Problems	European Journal of Advances in Engineering and Technology 2020, 7(6):57-65, Volume 7 Issue 6	2020
P. Musau	Comparative Analysis of Implementation of Solar PV Systems Using the Advanced SPECA Modelling Tool and HOMER Software: Kenyan Scenario	High Tech and Innovation Journal pg 8-20 Vol 1, No 1 (2020), DOI: 10.28991/HIJ-2020-01-01-02	March2020
Job Kerosi, Heywood Ouma, and Kibet Langat	Sum Rate and Fairness Maximization in Device-to-Device Communication Underlying Cellular Networks	International Journal of Scientific and Technology Research (IJSTR), ISSN 2277-8616, Volume 9 Issue 2, pp.6438-6443	February 2020
Davies Segera, Mwangi Mbuthia, Abraham Nyete	“An Innovative Excited-ACS-IDGWO Algorithm for Optimal Biomedical Data Feature Selection”	BioMed Research International, vol. 2020, Article ID 8506365, 17 pages, 2020. <a href="https://doi.org/10.1155/2020/8506365">https://doi.org/10.1155/2020/8506365</a>	August, 2020
P.M. Musyoka, P. Musau and A. Nyete	“Optimal Load Shedding Scheme for a Model Renewable Energy Micro-Grid,”	2020 IEEE PES/IAS PowerAfrica, Nairobi, Kenya, 2020, pp. 1-5, <a href="https://doi.org/10.1109/PowerAfrica49420.2020.9219902">https://doi.org/10.1109/PowerAfrica49420.2020.9219902</a>	October, 2020
H. Omondi, P. Musau and A. Nyete	“Smart Grid Energy Management System for Industrial Applications,”	2020 6th IEEE International Energy Conference (ENERGYCon), Gammarth, Tunis, Tunisia, 2020, pp. 1062-1067, doi: 10.1109/ENERGYCon48941.2020.9236544.	October, 2020
P.M. Musyoka, P.M. Musau and A. Nyete	“Coherent Swing Under-Frequency Transient Stability for Renewable Sources Islanded Micro-Grid,”	2020 6th IEEE International Energy Conference (ENERGYCon), Gammarth, Tunis, Tunisia, 2020, pp. 413-416, doi: 10.1109/ENERGYCon48941.2020.9236525	October, 2020
W. O. Amolo, P. Musau and A. Nyete	“Non-Technical Power Loss Reduction and Transients Stability: Optimal Placement of Reclosers,”	2020 IEEE PES/IAS PowerAfrica, Nairobi, Kenya, 2020, pp. 1-5, doi: 10.1109/PowerAfrica49420.2020.9219824.	October, 2020

Authors	Title	Journal	Date
N.N. Mwanza, P.M. Moses and A.M. Nyete	“Short-term Forecasting for Integrated Load and Renewable Energy in Micro-grid Power Supply,”	2020 IEEE PES/IAS PowerAfrica, Nairobi, Kenya, 2020, pp. 1-5, doi: 10.1109/PowerAfrica49420.2020.9219859.	October, 2020
B.O. Ojwang, P.M. Musau, A.M. Nyete and C.W. Wekesa,	“Developing an Environmental Decision Making Model for Optimal Solar and Wind Energy Utilization,”	2020 IEEE PES/IAS PowerAfrica, Nairobi, Kenya, 2020, pp. 1-5, doi: 10.1109/PowerAfrica49420.2020.9219850.	October, 2020
Filbert Onkundi Ombongi, Heywood Ouma Absaloms, Philip Langat Kibet	Energy Efficient Resource Allocation in Millimeter-Wave D2D Enabled 5G Cellular Networks	Engineering, Technology & Applied Science Research, VOLUME 10, ISSUE 4 PAGES 6152-6160	August, 2020

## Research Projects and Grants

Research Project Title	Funding Body	Proposal Details	Principal Researcher	Grant	Duration
Kenya/South Africa Collaborative Research Grant	NRF-Kenya and NRF-South Africa	New multiple Antenna System for 5G	Dr Akuon Peter Odero	KShs 3M	
ADB/MOEST Training Contract	ADB/MOEST	Training for PhD and MSc in Electrical and Electronic Engineering	Prof H A Ouma	KShs 33,842,127	3 years (2017-2020)

## Staff

Associate Professor - 4    Senior Lecturer - 2    Lecturer - 6    Tutorial Fellow - 3  
 Graduate Assistant - 4    Technical Staff - 13    Secretary - 1    Cleaner - 2    **Total = 35**

## Key Achievements

Date	Item	Department	Comment
May 12, 2020	Demonstration of a Ventilator model for Covid-19 mitigation	Electrical and Information Engineering	The electrical engineers (Lead Investigators) teamed with their mechanical counterparts and medical doctors to develop a model of a home-grown portable ventilator that will reduce the cost of the current ventilators by nearly 90%.

Date	Item	Department	Comment
April, 2020	Online teaching and learning commences	Electrical and Information Engineering	In response to COVID-19 pandemic, the department transitioned its teaching and learning for all theoretical units smoothly into online.
August 1st 2020 to 31st July 2021	Award of Mini Grant worth Kshs. 1,500,000/= from KENET	Electrical and Information Engineering	Prof Heywood Ouma, Oscar Ondeng and Kinyua Wachira received Kshs. 1,500,000/= in support of activities of A students-Driven, Quasi-Flipped Learning Program for Embedded Design and Machine Learning Using the Raspberry-Pi Platform.
Aug 24th-4th Sept, 2020	Online examinations	Electrical and Information Engineering	The department conducted its first semester online examination 2019/2020 as approved by the Senate. The Success enabled the completion of studies for students and promotion to the next academic year
August 26, 2020	Online registration & orientation of new students	Electrical and Information Engineering	Enrollment and orientation of first year students was Successful conducted in the department
September 25, 2020	47 students graduated in Virtual 63rd Graduation Ceremony held at the Great Court	Electrical and Information Engineering	The department produced the following graduands: BSc - 44      MSc - 1      PhD - 1
12th - 14th October 2020	AEC2020 Virtual Conference	Electrical and Information Engineering	The Architecture & Engineering conference was conducted virtually chaired by Dr. Peter Akuon.
December 11, 2020	19 students graduated in virtual 64th Graduation Ceremony held at the Great Court	Electrical and Information Engineering	The department produced the following graduands: BSc - 16      MSc - 3
December 2020	Winner Award KSA Research Chair Grant	Electrical and Information Engineering	Overall winner in the KSA Award Grant worth Kshs. 1,000,000/= for development of nanosatellite with PI as Prof. J. Mwangi Mbuthia.
December 2020	Successfully Set up of calibration laboratory	Electrical and Information Engineering	Set up of a modern calibration centre to be accredited by Kenya Accreditation Service (KENAS)



# Department of Petroleum and Chemical Engineering

## Introduction

The Department of Petroleum and Chemical Engineering is the most recent addition to the School of Engineering, at the University of Nairobi. The Department was started as a program under the Department of Mechanical and Manufacturing Engineering in the year 2014, which led to the admission of the first cohort of students in 2015.

The Petroleum Engineering undergraduate program is primarily concerned with the training on how to engage in economic extraction of oil and gas natural resources from the earth. Producing oil and gas is accomplished through the exploration, design, drilling and operation of wells and well systems, and the integrated management of the underground reservoirs in which the resources are found. A minor emphasis of the petroleum engineering program at the University of Nairobi will be the study of transportation of crude and refined petroleum products as well as downstream activities such as storage and distribution of petroleum products.

The curriculum is tailored to give the students a solid scientific foundation from the start, where in the first year of study, courses in mathematics, physics, chemistry, computer programming are taught, as well as other courses in the humanities such as communication skills, philosophy and HIV/AIDS. These courses are common to other disciplines of engineering.

Engineering sciences such as Geology, Fluid Mechanics, Thermodynamics and Heat Transfer, Mechanics of Machines, Systems and Controls, Engineering Communication as well as Mathematics.

In the fourth and fifth years of study, the students study specialized courses in reservoir engineering, well drilling technology, the evaluation of petroleum formations, and production systems and production enhancement. In these senior years, students also are expected to study broad subjects such as engineering management. In the final year of study, students work on an engineering project that could be experimental or design-based and this exposes them to the design process from concept to the final product, emphasizing effective communication and presentation skills.

## Strategic Issues

The success of any program is a combination of a well trained and committed team of faculty plus a strategic investment in equipment for student training and research. The department has developed as a strategic initiative, a plan to acquire state of the art equipment for demonstration activities, experiments, and research and development activities. Currently there are efforts to develop a High Performance Computing Laboratory to enable simulation of Oil and Gas reservoirs. In addition, efforts are underway to map out laboratory facilities within industry and to build collaborative efforts that would enable mutual beneficial collaboration through the use of these laboratories.

## Staff

The Department of Petroleum and Chemical Engineering is currently in the growth stages of its set up. The department has used a combination of adjunct Professors and industrial experts to support its training program. This has been implemented in tandem with an aggressive program to develop its own staff. Currently we have two members of staff at an advanced stage in their MSc. in Petroleum Engineering. Additionally, there are plans to register members of staff in relevant PhD programs.

## Major Achievements

Our pioneer class is currently in their final year of study and is expected to graduate in September of 2021. This is a major milestone that we expect to celebrate. The curriculum has also undergone its first overhaul and is set to be approved by the senate in the first quarter of 2021. The delivery of courses entered a new stage this year with the start on online instruction. The Department also succeeded in mounting online instructions that saw the conclusion of the 2019-2020 academic year, and the first semester of the 2020-2021 academic year. The Department of Petroleum and Chemical Engineering has links and collaborations with University of Petroleum and Energy Studies (UPES) India. This collaboration enabled one of our staff members to pursue further studies in India. In addition, our pioneer fifth year students studied five (5) units in their first semester in UPES, India.

## Projections

In the next academic year, the Department expects to grow its team of faculty to further strengthen delivery of its curriculum. This has been a long-term effort and we are glad to see a return on the initial efforts of the program developers. Additionally, the department will prepare and present post graduate course curricula to develop higher level skills for the enhancement of our contribution in this sector.

# College of Biological and Physical Sciences

## School of Biological Sciences

### Introduction

The School of Biological Sciences (SBS) is set in a serene environment at Chiromo Campus, located about 2 km from Nairobi City. It offers training in three well-structured undergraduate degree programs, as well as MSc. and PhD. programs in over 12 bioscience specialty areas. The School is structured into the following eight thematic areas; each with a thematic head:

- |  |                                   |
|--|-----------------------------------|
| i) Microbiology, Parasitology and Immunology | v) Marine and Fisheries           |
| ii) Genetics and Biotechnology               | vi) Ethnobiology and Taxonomy     |
| iii) Ecology and Environmental Sciences      | vii) Physiology and Biochemistry  |
| iv) Insect Science                           | viii) Biological Natural Products |

The School is involved in different types of researches within the biological arena and has links with several local, regional and international institutes. Besides teaching and research, the School offers other services to the public and private sector, and the general public such as consultancies in many biosciences areas, taxonomic identification of plants and animals, and sale of biological products, such as seedlings, mice and insects, among others.

### Programmes Offered

The School offers three undergraduate degree programmes, namely:

- i) BSc. (Biology)
- ii) BSc. (Environmental Conservation & Natural Resource Management)
- iii) BSc. (Microbiology and Biotechnology)

### Student Enrolment

#### Undergraduate

Degree Program	Total
BSc. (Biology)	357
BSc. (Microbiology & Biotechnology)	676
BSc. (Environmental Conservation & Natural Resource Management)	482
<b>Total</b>	<b>1,515</b>

#### Postgraduate

Programmes	Number of Students Enrolled
MSc. Agricultural Entomology	3
MSc. Applied Parasitology	4
MSc. Biology of Conservation	11

MSc. Cell Biology and Physiology	1
MSc. Genetics	4
MSc. Hydrobiology (Aquaculture)	4
MSc. Medical & Veterinary Entomology	2
MSc. Microbiology	6
MSc. Plant Physiology & Biochemistry	1
<b>Total</b>	<b>36</b>

## International Student

Degree Program	Number of Students Enrolled
BSc. (Microbiology & Biotechnology)	4
BSc. (Environmental Conservation & Natural Resource Management)	2
Postgraduate (MSc)	3
Postgraduate (PhD)	2
<b>TOTAL</b>	<b>11</b>

## Number of Graduands

Degree Program	No. of Graduands
BSc. (Biology)	67
BSc. (Microbiology & Biotechnology)	69
BSc. (Environmental Conservation & Natural Resource Management)	135
MSc.	11
PhD.	6
<b>Total</b>	<b>288</b>

## National and International Links and Collaborations

Title	Industry Partners
Training and Scientific Research and University of Nairobi	North East Forestry University (NEFU), Harbin, P.R. China
Kamuthanga Farm Ltd and The University of Nairobi	Kamuthanga Farm Ltd
NARA Institute of Science and Technology, Japan and The University of Nairobi	NARA Institute of Science and Technology, Japan
Yokohama National University (YNU), Japan and The University of Nairobi	Yokohama National University (YNU), Japan
City university of Mogadishu, Somalia and The University of Nairobi	City university of Mogadishu, Somalia

## Publications

Author*	Title	Journal
D. Odongo et. al	The Rhipicephalus appendiculatus tick vector of Theileria parva is absent from cape buffalo (Syncerus caffer) populations and associated ecosystems in northern Uganda	Parasitology Research <a href="https://doi.org/10.1007/s00436-020-06728-x">https://doi.org/10.1007/s00436-020-06728-x</a>
David O. Odongo et. al	Equid infective Theileria cluster in distinct 18S rRNA gene clades comprising multiple taxa with unusually broad mammalian host ranges	Parasit Vectors. 2020; 13: 261 doi: 10.1186/s13071-020-04131-0 PMID: 32430015
Odongo D. O et. al	Multilocus genotyping of Theileria parva isolates associated with a live vaccination trial in Kenya provides evidence for transmission of immunizing parasites into local tick and cattle populations	Transboundary and Emerging Diseases 2020 Mar; 67 Suppl 1:88-98. doi: 10.1111/tbed.13417. PMID: 32174043
Bishop RP, Odongo D et. al	A review of recent research on Theileria parva: implications for the infection and treatment vaccination method for control of East Coast fever	Transboundary and Emerging Diseases 2020 Mar; 67 Suppl 1:56-67. doi: 10.1111/tbed.13325. PMID: 32174044
Odongo D, Bishop RP, Skilton RA, et. al	Antigen gene and variable number tandem repeat (VNTR) diversity in Theileria parva parasites from Ankole cattle in southwestern Uganda: evidence for conservation in antigen gene sequences combined with extensive polymorphism at VNTR loci	Transboundary and Emerging Diseases 2020 Mar; 67 Suppl 1:99-107. doi: 10.1111/tbed.13311.PMID: 32174038
Odongo D, Kuate JR, et. al	First detection of Theileria parva in cattle from Cameroon in the absence of the main tick vector Rhipicephalus appendiculatus	Transboundary and Emerging diseases 2020 Mar; 67 Suppl 1:68-78. doi: 10.1111/tbed.13425. PMID: 32174039
Daniel Nthiwa, David Odongo et. al	Seroprevalence of foot-and-mouth disease virus in cattle herds raised in Maasai Mara ecosystem in Kenya	Preventive Veterinary Medicine 2020 Mar 13;176:104929. Epub 2020 Feb 13
Virginia V. Wang'ondu	Mangrove Degradation: Reversing the trend through community engagement	©2020 Authors Published by Office of DVC Research, Innovation and Enterprise, <a href="https://uonresearch.org/journal/kpb">https://uonresearch.org/journal/kpb</a> University of Nairobi, <a href="http://www.uonbi.ac.ke">http://www.uonbi.ac.ke</a>
Nathan Gichuki Catherine Lukhoba et. al	Medicinal Plants of the Maasai of Kenya: A Review.	Plants, 9, 44; ( <a href="https://doi.org/10.3390/plants9010044">https://doi.org/10.3390/plants9010044</a> ).
Nathan Gichuki Catherine Lukhoba et. al	Sustainability of the Loita Maasai Childrens' Ethnomedicinal Knowledge	Sustainability, 11(19), 5530; ( <a href="https://doi.org/10.3390/su11195530">https://doi.org/10.3390/su11195530</a> ).

Author*	Title	Journal
Catherine Kitonde Judith Odhiambo et. al	Morphological Traits as Indicators of Bitterness in Traditional Vegetables: The Case of Spider Plant ( <i>Gynandropsis gynandra</i> ) in Kenya	Asian Journal of Research in Botany, 2(3): 1-15.
Catherine Kitonde Catherine Lukhoba et. al	In vitro studies of 3-O-Methylquercetin against phytopathogenic fungi of major cereals	Journal of Agricultural Science and Practice Volume 4(4), pages 102-112, August 2019 Article Number: CF2BA5C52 ISSN: 2536-7072 <a href="https://doi.org/10.31248/JASP2019.145">https://doi.org/10.31248/JASP2019.145</a> <a href="https://integrityresjournals.org/journal/JASP">https://integrityresjournals.org/journal/JASP</a>
Catherine Kitonde Catherine Lukhoba Maina Wagacha	Effect of Vernodalol, a Sesquiterpene Lactone, on Economically Important Agricultural Fungi.	International Journal of Innovative Science & Research Technology, 4 (3): 685–694
David Odongo et. al	Theileriosis in mountain Bongo repatriated to Kenya: a clinical and molecular investigation	Journal of Zoo and wildlife medicine Vol.50,issue 2, pgs 342-349
David Odongo et. al	Assessment of the prevalence of <i>Theileria lestoquardi</i> in sheep from the Sudan using serological and molecular methods	Journal of Preventive Veterinary Medicine Vol. 169, pgs 104697
David Odongo et. al	A participatory epidemiology study of major cattle diseases amongst Maasai pastoralists living in wildlife-livestock interfaces in Maasai Mara, Kenya	Journal of Tropical Animal Health and Production. pp 1-7
David Odongo et. al	Molecular identification of zoonotic hookworms in dogs from four counties of Kenya.	Journal of helminthology. pp 1-8, Cambridge University Press
Nathan Gichuki et. al	Woody species composition in upper Tana River flood plain of Kenya: potential effects of change in flood regimes	Journal of Sustainability, Environment and Peace Vol. 1 issue 3, pp 91-97
Joyce Kanini Omari	Woody species composition in upper Tana River flood plain of Kenya: potential effects of change in flood regimes	Journal of Sustainability, Environment and Peace Vol. 1 issue 3, pp 91-97
George Ong'amo	Decanal as a major component of larval aggregation pheromone of the greater wax moth, <i>Galleria mellonella</i>	Journal of Applied Entomology Vol. 143, issue 4 pgs 417-429

Author*	Title	Journal
Florence A. Oyieke et. all	Larval species diversity, seasonal occurrence and larval habitat preference of mosquitoes transmitting Rift Valley Fever and Malaria in Baringo County, Kenya.	Journal of parasites & vectors. Vol. 12, Issue 1, pp 295. By BioMedical Central.
Wolfgang Richard Mukabana	Artisanal fishing supports breeding of malaria mosquitoes in Western Kenya	Malaria Journal Vol. 18, issue 1 pp 77 by BioMedical Central.
John Maina Wagacha	Influence of socio-economic and agronomic factors on aflatoxin and fumonisin contamination of maize in Western Kenya	Journal of Food Science & Nutrition
Mary Mwangi et. all	Insights into the diet and feeding behaviour of Red-capped lark <i>Calandrella cinerea</i> (Aves: Passeriformes: Alaudidae)	Journal of threatened taxa Vol. 11, issue 6 pp 137217-13733
Sheila Okoth et. all	Activation of the p38/MAPK pathway regulates autophagy in response to CYPOR-dependent oxidative stress induced by zearalenone in porcine intestinal epithelial cells	Journal of food and chemical toxicology Vol. 131, Sept. 2019, 110527
Sheila Okoth et. al	Curcumin-based photosensitization inactivates <i>Aspergillus flavus</i> and reduces aflatoxin B1 in maize kernels	Journal of food microbiology Vol 82, issue 0740-0020 pp. 82-88
Francis Mwaura et. al	Biosynthesis of silver Nanoparticles from <i>Eucalyptus Corymbia</i> leaf extract at optimized conditions	Journal of Thermodynamics & Catalysis 8 (1), 5 -Nano hybrids and composites vol. 25 pp 32-45, by Trans Tech Publications
Robert Chira	Insights into the diet and feeding behaviour of Red-capped Lark <i>Calandrella cinerea</i> (Aves: Passeriformes: Alaudidae)	Journal of Threatened Taxa
Evans Mwangi	Seasonal abundance of <i>Plutella xylostella</i> (Lepidoptera: Plutellidae) and diversity of its parasitoids along altitudinal gradients of the eastern Afrotropics	Phytoparasitica
Paul Ndegwa et al	Decanal as a major component of larval aggregation pheromone of the greater wax moth, <i>Galleria mellonella</i>	Journal of Applied Entomology Vol. 143, issue 4 pp 417-429
H. Ochanda	A search for snail-related answers to explain differences in response of <i>Schistosoma mansoni</i> to praziquantel treatment among responding and persistent hotspot villages along the Kenyan shore of Lake Victoria	The American journal of tropical medicine and hygiene
Mwaura B. Francis	Silver-zinc oxide nanocomposite antiseptic from the extract of <i>Bidens pilosa</i>	SN Applied Sciences

Author*	Title	Journal
Mwaura B. Francis	Bacteriophages Isolated in China for the Control of Pectobacterium carotovorum Causing Potato Soft Rot in Kenya	Virologica Sinica
Lucy Irungu Paul N. Ndegwa	Species composition, phenotypic and genotypic resistance levels in major malaria vectors in Teso North and Teso South Subcounties in Busia County, Western Kenya	Journal of Parasitology Research
Paul N. Ndegwa Valentine ngowi	Potential effects of Climate Change on Tritrophic Interactions in Crucifer Farming Systems of Mount Kilimanjaro and Taita Hills	ICIPE digital repository
Sheila Okoth et. al	Preharvest Management Strategies and their Impact on Mycotoxigenic Fungi and Associated Mycotoxins in the book title: Mycotoxins impact and management strategies by Patrick Berka Njobeh	eBook (PDF) ISBN:978-1-83881-848-7
Francis Mwaura et. al	Screening of Kenyan Soybean Cultivars For Resistance to different Races of Phakopsora Pachyrhizi (Soybean Rust) and Determination of Molecular Basis or rust Resistance	Journal of food and chemical toxicology Vol. 131, Sept. 2019, 110527
Sheila Okoth et. al	Occurrence of Fungi and Mycotoxins in Fish Feeds and their impact on Fish Health	International Journal of Microbiology
Sheila Okoth et. al	Effects of aflatoxin B <sub>1</sub> on reproductive performance of farmed Nile Perch	International Journal of Veterinary Science and Medicine
Sheila Okoth et. al	Genetic Profiling of Aspergillus Isolates with varying Aflatoxin production potential from different Maize-Growing regions of Kenya	Toxins journal MDPI
Sheila Okoth et. al	Correction: Mitema, A. et al. The Development of a qPCR Assay to measure Aspergillus flavus Biomass in maize and the use of a biocontrol strategy to limit Aflatoxin production.	Toxins journal MDPI,11,179
Sheila Okoth et. al	Aflatoxin Binders in Foods for Human Consumption-can this be promoted safely and ethically?	Toxins journal MDPI
Sheila Okoth et. al	Curcumin-based photosensitization inactivates Aspergillus flavus and reduces aflatoxin B <sub>1</sub> in Maize kernels	Science direct: Food Microbiology



Author*	Title	Journal
Sheila Okoth et. al	Activation of the p38/MAPK pathway regulates autophagy in response to the CYPOR-dependent oxidative stress induced BY Zearalenone in porcine intestinal epithelial cells	Food and Chemical Toxicology
Sheila Okoth et. al	Infestation mechanisms of two woodborer species in the mangrove <i>Sonneratia alba</i> J. Smith in Kenya and co-occurring endophytic fungi	PLOS ONE: <a href="https://doi.org/10.1371/journal.pone.0221285">https://doi.org/10.1371/journal.pone.0221285</a>
Richard W. Mukabana	Artisanal fishing supports breeding of malaria mosquitoes in western Kenya	Malaria Journal
George Ong'amo et. al	Pathogens, endosymbionts, and blood-meal sources of host seeking ticks in the fast-changing Maasai Mara wildlife ecosystem	Journal of Medical Entomology
Sheila Okoth et. al	Influence of growth temperature on thermal tolerance of leading foodborne pathogens	Journal of Food Science and Nutrition
Sheila Okoth et. al	Preharvest Management Strategies and their Impact on Mycotoxigenic Fungi and Associated Mycotoxins	Journal of Applied Biosciences
E. Ndegwa et. al	Longitudinal Shedding Patterns and Characterization of Antibiotic Resistant <i>E. coli</i> in Pastured Goats Using a Cohort Study	Antibiotics MPDPI
Richard W. Mukabana	A Guide to Biological Control of Fall Armyworm in Africa Using Egg Parasitoids	International Journal for Parasitology
Richard W. Mukabana	Seasonal abundance of <i>plutella xylostella</i> (Lepidoptera: plutellidae) and diversity of its parasitoids along altitudinal gradients of eastern afro-montane	International Journal for Parasitology
Wagacha Maina et. al	Nutrient characteristics of swine manure and waste water	Journal of Agricultural, Biological, and Environmental Statistics
George Ong'amo et. al	Do parasitoids reduce cereal losses? Estimating the impact of parasitoids on stem borer pest infestation and maize yield	Journal of Applied Biosciences

## Major Achievements in the Year 2020

- i) Increased enrolment of postgraduate students in the School.
- ii) Increased number of PhD graduates from the School.
- iii) Increased completion rates of postgraduate students
- iv) Increased publication output

- v) Increased collaborative research projects
- vi) Online lectures and examinations conducted successfully
- vii) Online meetings and trainings conducted successfully
- viii) Interviews for various positions conducted online
- ix) Established and equipped an Aquaculture Laboratory.
- x) Revived the School's Insectary.

### Staff Establishment

Job Title	No. in Position
Professors	6
Associate Professors	5
Senior Lecturers	14
Lecturers	8
Assistant Lecturers	2
Tutorial Fellows	4
Assistant Registrar	1
Chief Technologist	6
Secretary	1
Administrative Assistant	1
Senior Technologist	11
Technologist	3
Registry Clerk	1
Technical Assistant	1
Trainee Technical Assistant	1
Driver	1
Technical Assistant	1
Subordinate Staff	1
<b>TOTAL</b>	<b>68</b>

## School of Computing and Informatics

### Introduction

The School of Computing and Informatics (SCI) was formally established in 1977 as the Institute of Computer Science whose mandate included academic as well as University ICT services. In the year 2002, and in the interest of realizing more focused management and efficiency of the two functions, ICS was split into two units i.e. ICTC and SCI. The School takes its name from the core competencies that it seeks to nurture: *Computing*, to cover the theory and science of computation and *Informatics* to exemplify the practical outworking of this theory in technology and application. The School is a regional leader in research, research and development (R&D) and advanced education in computing. It was the first to offer Bachelors and Postgraduate degrees in Computer Science in the region.

Our objective in teaching and learning is to produce high quality, well-rounded, sophisticated graduates who are productive, innovative, and capable of lifelong learning. Our courses are therefore developed and delivered to a high standard of educational and technological competence.

We aim to institute a dynamic programme of aggressive research in our core areas of competence: information systems, distributed systems and artificial intelligence, in line with national and regional priorities.

### Consultancy

We seek to engage productively with the public and private sector to solve problems of national or organizational economic importance in order to foster progress in our environment. A number of our academic staff members are involved in consultancy work through UNES.

### Research and Development and Extension Services

Based on sound research, relevant teaching, and problem-solving experience gained through consultancy opportunities, we develop training programmes, policies, methodologies and information technology software and hardware products for the local, regional and international market and increase awareness of the same in the community at large.

### Thematic Areas

The research mandate of the School of Computing and Informatics is carried out under three research groups in the following thematic areas:

- i) ICT for development (ICT4D)
- ii) Computational Intelligence
- iii) Distributed Computing

### Programmes Offered

Programmes	Summary
<b>Diploma in Computer Science BSc. Computer Science</b>	It Started in 1993. This is the School's flagship programme. Continues to attract high caliber students. We admit a second class at Kenya Science Campus in addition to the class based in Chiromo Campus. Curriculum has been reviewed 5 times. Most recent review in 2019 March.

<b>MSc. Computational Intelligence</b>	This is an evening programme targeting applicants with first degree in Computer Science or related Engineering, Mathematics or Statistics discipline. Mode of study is coursework and project. Curriculum is currently under review. It started in 2013.
<b>MSc. Distributed Computing Technology</b>	This is an evening programme targeting applicants with first degree in Computer Science or a related discipline (e.g. Engineering, Mathematics and Physics). Mode of study is coursework and project. Curriculum is currently under review. It started in 2013.
<b>MSc. Information Technology Management</b>	This is an evening programme targeting applicants with first degree in Computer Science or Information Technology or a related discipline. Mode of study is coursework and project. Curriculum is currently under review. It started in 2013.
<b>PhD. Information Systems, PhD. Computer Science</b>	These are PhD, purely by research. The program was reviewed in May 2019 and its course work and Research. The programmes have produced 24 graduates so far. Currently over 60 students are registered. It started in 2000.

## Undergraduate Enrolment

Year of Study	Government Sponsored	Privately Sponsored	Totals
1	47	50	97
2	45	92	137
3	33	86	119
4	34	53	87
<b>Total</b>	<b>159</b>	<b>281</b>	<b>440</b>

## Postgraduate Enrolment

### Masters

Year of study	MSc. IT Management	MSc. Computational Intelligence	MSc. Distributed Computing Technology	Total
1	24	33	15	72
2	50	29	23	102
<b>Total</b>	<b>74</b>	<b>62</b>	<b>38</b>	<b>174</b>

### PhD

Level	Male	Female	Total
1	16	5	21
2	17	6	22
3	22	7	29
<b>Total</b>	<b>55</b>	<b>18</b>	<b>72</b>

## International Student Component

During the year 2020, the School had 16 international students.

### Number of Graduates

Degree Programmes	Total
Diploma in Computer Science	36
BSc in Computer Science	63
MSc in Information Systems	1
MSc in Computer Science	4
MSc. IT Management	25
MSc Applied Computing	4
MSc Computational Intelligence	7
MSc Distributed Computing Technology	16
PhD. Computer Science	2
<b>Total</b>	<b>158</b>

### Research Projects

Title	Partners
Health IT Project	USAID
Digital Matatus	Costworld Foundation
HIV Capacity building (UNITID)	UNITID
Africa Climate Change Leadership Program (AFRICLP)	Institute of research Assessment (IRA, IDRC)
Quantifying the contribution of forage technology adoption and advise on policy targets under the Kenya Climate Smart Agriculture Strategy	KALRO
Data Center Management, Maintenance and Support Services	KeeRA

### Publications

Author	Title	Journal	Month & Year
Frankline Makokha, Christopher K. Chepken, and Elisha T. Opiyo	A Comparative Study of a Client Based Vendor Neutral Cloud QoS Monitoring Tool and Cloud Providers' Platform Integrated QoS Monitoring Tools	EJECE, European Journal of Electrical Engineering and Computer Science	January 2020
Benard Mutisya Nzyoka Nzyoka, David Muchangi Mugo, Stephen Mburu Ng'ang'a	Medical Device Integration with Electronic Health Records: A Case Study of University of Nairobi Health Services, Kenya	International Journal of Computers & Technology	January 2020

Author	Title	Journal	Month & Year
Grace Leah Akinyi and Robert Oboko	Proposed Self-Regulation Model for Collaborative E-Learning Systems in Kenyan Public Universities	American Journal of Engineering and Applied Sciences	January 2020
Eric Araka, Elizaphan Maina, Rhoda Gitonga and Robert Oboko	Research trends in measurement and intervention tools for self-regulated learning for e-learning environments—systematic review (2008–2018)	Research and Practice in Technology Enhanced Learning	2020
Rachael Njeri Kibuku, Prof. Daniel Orwa Ochieng and Prof. Agnes Nduku Wausi	e-Learning Challenges Faced by Universities in Kenya: A Literature Review	The Electronic Journal of e-Learning	February 2020
David Gureya, João Neto, Reza Karimi, João Barreto, Pramod Bhatotia, Vivien Quema, Rodrigo Rodrigues, Paolo Romano, Vladimir Vlassov	Bandwidth-Aware Page Placement in NUMA Systems	34th IEEE International Parallel & Distributed Processing Symposium (IPDPS)	March 2020
Kevin Obiero, Ted Lawrence, Jessica aIves, Stephanie Smith, Friday Njaya, Robert Kayanda, Herwig Waidbacher, Dan Olago, Evans Miriti, R.E.Hecky	Advancing Africa’s Great Lakes research and academic potential: Answering the call for harmonized, long-term, collaborative networks and partnerships	Journal of Great Lakes Research	February 2020
Kwale F.M., Wagacha P.W. and Kahonge A.M.	A Clustering Accuracy Comparison Framework	African Journal of Education, Science and Technology	March 2020
Boniface Akuku, Timothy Mwololo Waema and Robert Oboko	Institutionalization of knowledge management strategies in agricultural research organizations: a systematic literature review	Knowledge Management for Development Journal	March 2020
Walter Buyu, Elisha O. Abade	Forensic Analysis of Dropbox Data Remnants on windows 10	International Journal of computer Application	July 2020
Michael M Kangethe, Elisha O, Abade	Dynamic Directional NxN Chart Based Text Based Substitution Cipher	Journal of Computer Science and Applications	September 2020

Author	Title	Journal	Month & Year
Michael M Kangethe, Robert Oboko	Association Rankings Model for Cellular Surveillance Analysis	Journal of Computer Science and Applications	July 2020
Simon Kihiu, Elisha Abade	Comparative Analysis of Distinctive Features of the Ransomware tactics in Relation to other Malware	International Journal of Computer	July 2020
Justin M Njeru, Elisha O, Abade	A Survey on Big Data Analytics Architecture for Urban Transport System: A case for Nairobi Metropolitan	International Journal of computer Application	September 2020
John Onyiego, Odira Elisha Abade	Supervisory Control and Data Acquisition(SCADA) System Forensics Based on the Modbus Protocol	International Journal of Computer	August 2020
Boniface Akuku, Timothy Mwololo Waema and Robert Oboko	Institutionalization of knowledge management strategies in agricultural research organizations: a systematic review of the international literature	Knowledge Management for Development Journal	September 2020.
Jecinta Muthoni Ndungu, Christopher A. Moturi	Determinants of Mobile Fintech Update in Kenyan Microfinance Sector	Current Journal of Applied Science and Technology	September 2020
Wanjiku Nganga, Ikechukwu Achebe	Spoken word Corpus and dictionary definition for an African language	Journal data Mining and digital Humanities	August 2020
Dennis M. Muriuki, Lawrence G. Muchemi	A Recommendation System for retail Banking products	African Journal of Mathematics and Computer Science Research	September 2020
Veronicah Owino, Timothy Waema	Digital Transformation as A Source of Competitiveness among Small and Medium Enterprises in Nairobi City County, Kenya	Journal of Business and management	August 2020
Erick O. Otieno, Agnes N. Wausi, Andrew M. Kahonge	Exploring the Factors That Contribute Towards Information Security Policy Compliance Culture	Information and Knowledge Management	August 2020
Edward Buhasho, Agnes Wausi, James Njihia	Business Intelligence Capability, Complementary Resources and Performance among Public Listed Firms in Kenya	Information and Knowledge Management	August 2020

Author	Title	Journal	Month & Year
Noel K. Joseph, Peter M. Macharia, Paul O. Ouma, Jeremiah Mumo, Rose Jalang'o, Peter W. Wagacha, Victor O. Achieng, Eunice Ndung'u, Peter Okoth, Maria Muñiz, Yaniss Guigoz, Rocco Panciera, Nicolas Ray & Emelda A. Okiro	Spatial access inequities and childhood immunization uptake in Kenya	BMC Public Health	September 2020
Christopher Moturi; Geofrey Ogoti	Strengthening technology risk management in mobile money lending	International Journal of Financial Services Management	October 2020
Charles Lwande, Robert Oboko & Lawrence Muchemi	Learner behavior prediction in a learning management system	Educ Inf Technol	November 2020
Edwin O. Ngwawe, Elisha O. Abade, Stephen N. Mburu	Context-Aware Computational Trust Model for Recommender Systems	EJECE, European Journal of Electrical Engineering and Computer Science	November 2020
Erick. O. Otieno, Agnes N. Wausi, Andrew M. Kahonge	A Theoretical Model for Information Security Policy Compliance Culture	International Journal of Applied Information Systems	September 2020

### Links/Collaborations/Partnerships

Partners	Details	Duration
KALRO	Quantifying the contribution of forage technology adoption and advise on policy targets under the Kenya Climate Smart Agriculture Strategy	2020 - 2021
USAID	Providing support to the sustaining use of District Health Information System II in Kenya Program	September 2020 to September 2021
Costworld	Supporting Digital Matatu Project	September 2020 to September 2021
Pompeu Fabra University Spain	Mobility for learners and staff	2020-2021
KeRRA	Data Center Management, Maintenance and Support Services	2020-2021



## Staff Portfolio

Designation/Grade	No of Staff
Professor	3
Associate Professor	4
Senior Lecturer	8
Lecturer	4
Tutorial Fellow	4
Senior Administrative Assistant	1
Senior Secretary	1
Network Engineer	1
Senior Technologist	2
Technologists	2
Library Assistant	1
Record Clerk	1
Cleaners	1
Driver	1
<b>Total</b>	<b>34</b>

## Other Events

### Huawei Awards



A third year student at the School of Computing and Information, Maluki Muthusi, was awarded the first prize for winning in the global Huawei ICT Competition in the network track. This is a skill-based competition involving hands-on experience in computer networks and network security. Over 109 teams from Asia, Europe, Southern, and Eastern Africa participated in the global finals. A total of 327 students managed to get to the global finals out of the 150,000 who had registered for the competition. The award ceremony that took place on January 18, 2020, at Serena Hotel, Nairobi and was presided by the PS for Education, Amb. Simon Nabukwesi, who reiterated the government's commitment to nurture ICT skills among the youths. The student later presented the prize to the Vice-Chancellor Prof Stephen Kiama.

## Machine Learning with Azure Event on 19<sup>th</sup> February 2020

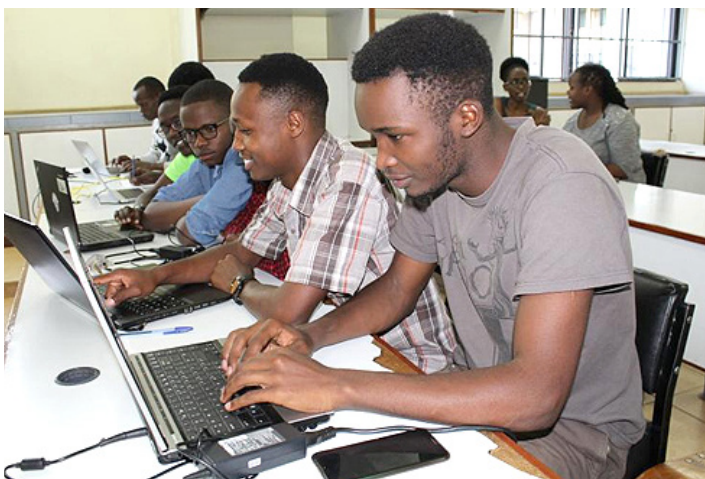
### Azure is Microsoft's Cloud Computing Platform



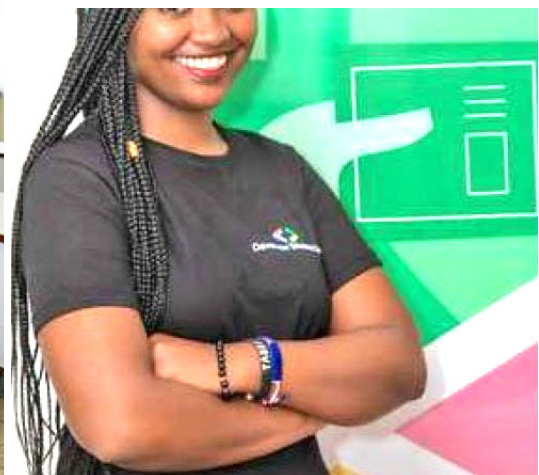
Microsoft student partner clubs are on-campus clubs around the world that seek to empower and help grow the local community through technology. On the afternoon of Wednesday February 19, 2020 from 2pm to 4 pm, the Microsoft student partners club at the University of Nairobi held an Azure fundamentals workshop.

Azure is Microsoft's cloud computing platform where one is able to deploy and build their applications. An introduction to azure and hosting of an application using azure app service was done during the workshop.

Students with their student emails were able to access the student azure student's account. An Azure for Students subscription includes \$100 in Azure credits to be used within the first 12 months plus select free services without requiring a credit card at sign-up.



*SCI student selected as the University Developer Students Club lead*



*Thabitha Kavyu*

Thabitha Kavyu, a third year student at the School of Computing and Informatics, was selected to be the Google Developer Students Club Lead of the University of Nairobi for the 2019 - 20 year. She is part of an amazing community of student leads who will be representing hundreds of colleges and universities across the globe. Her role is to help fellow students become competent software developers. She also trains them on the basics of coding by organizing events where students get to learn about emerging technologies such as Web, Android, Cloud and Artificial Intelligence. The position also entails bringing together women who are passionate about technology, and give them a platform to interact and learn from other successful women.

## School of Physical Sciences

### Department of Chemistry



#### Introduction

The Department of Chemistry is located in Chiromo Campus, Off-Riverside Drive. It is part of the School of Physical Sciences, College of Biological and Physical Sciences. The Department has over 1000 students' comprising of PhD, MSc and undergraduate including servicing the School of Pharmacy, Engineering, Agriculture and Education. The Department is headed by Prof John M. Onyari as the Chairman since August 17, 2015.

In the 2019/2020 academic year, the Department handled about 700 BSc. undergraduates and BSc. ODL (Analytical and Industrial Chemistry 46), 34 MSc. and 7 PhD. students. In addition, we handled a total of about 603 students from other schools and faculties, which includes College of Architecture and Engineering (Civil, Mechanical and Bio Systems Engineering), College of Agriculture and Veterinary Services (Agriculture and Veterinary Medicine), College of Health Sciences (Pharmacy) and College of Education & External Studies CEES (Kenya Science Campus). These students were served by 70 staff members. In this period, we offered three (3) undergraduate and four (4) postgraduate programs.



*Dept. of Chemistry Group photo*

## Programmes and Services Offered

The Department offers the following undergraduate and postgraduate degree programs:

### Undergraduate Programs

1. BSc. in Industrial Chemistry
2. BSc in Chemistry
3. BSc in Analytical Chemistry
4. MSc Industrial chemistry

### Postgraduate Programs

1. MSc in Chemistry
2. MSc in Environmental Chemistry
3. MSc. in Analytical Chemistry

### PhD

1. Doctor of Philosophy in Chemistry
2. Doctor of Philosophy in Environmental Chemistry

## Number of Students Enrolled

### Undergraduate Program

Programme	No. of Students
Bachelor of Science in Chemistry	115
Bachelor of Science (Industrial Chemistry)	71
Bachelor of Science (Analytical Chemistry)	44
<b>Total</b>	<b>230</b>

### Postgraduate Program

Programme	No. of Students
MSc (Environmental Chem.)	10
MSc (Analytical Chemistry)	8
MSc (Chemistry)	9
<b>Total</b>	<b>27</b>

### Doctor of Philosophy

Programs	No. of Students
PhD (Environmental Chem.)	1
PhD (Chemistry)	2
<b>Total</b>	<b>3</b>

**International Students:** The Department hosts 14 international students undertaking postgraduate programs.

## Graduates per Program

The table below shows the number of students per program in the year 2020.

BSc in Chemistry	BSc Industrial Chemistry	BSc Analytical Chemistry	MSc in Chemistry	MSc Industrial Chemistry	MSc Environmental Chemistry	MSc. Analytical Chemistry	PhD in Chemistry	Total
37	47	21	5	2	3	4	5	124

## Strategic Issues

### Research Facilities in the Department

The department conducted trainings and provided consultancy services to various clients from both Public and Private sectors. The major clients included Pest Control Products Board, KEWI, Nation Media, various Universities on application of GC/MS, HPLC, FTIR, AAS, UV/Visible, as well as emissions measurements etc.

The Department acquired Magritek Spinsolve 60NMR, Spectrometer



*Spin solve 60 NMR, Spectrometer*

The National Research Fund – Kenya (NRF-K) has awarded the Department of Chemistry, University of Nairobi **KSH 42,796,236** to establish a Kenya National Nuclear Magnetic Resonance (NMR) Centre (KNMRC). The center is to provide services by analyzing samples using NMR spectrometers for researchers and postgraduate students from various universities and research institution. NMR is the single most important analytical tool for identification of unknown compounds. In this regard, the Department of chemistry has acquired a brand new 60MHz Nuclear Magnetic Resonance Spectrometer (**Magritek Spinsolve 60 NMR, Germany**) at a cost of **KSH 11,072,727.80** from the NRF-K grant and the instrument is already installed, staff trained and is functional. This instrument is capable of analyzing  $^1\text{H}$ ,  $^{13}\text{C}$  and  $^{19}\text{F}$ , both one-dimensional and two-dimensional spectra, which will substantially improve the teaching, research and consultancy capability of the department. We are highly grateful to the National Research Fund – Kenya for the award of the Infrastructure Development Grant, and the University of Nairobi for facilitating and handling of the grant.

The Department also has a Physical Chemistry laboratory with capacity to do various analyses and specialized equipment such as bomb calorimeter, GC, HPLC and Ion Chromatograph that has also increased the scope of analyses. The Department has specialized laboratory for analysis of water, air, natural products, biodiesel and fuels, amongst others samples.

### GAS Chromatograph Mass Spectrometry (GC/MS) Equipment



*Atomic Absorption Spectrometer (AAS)*

The equipment is important in analysis of heavy metals in environmental samples such as water, soil and sediment; and industrial samples. The AAS is also important in teaching undergraduate and postgraduate students undertaking units in spectroscopic methods of analysis. It has also been used to support analysis of postgraduate research on heavy metals. The equipment can be used for analysis of heavy metals: Cd, Cu, Pb, Fe, Hg, Mg, Mn, Ni and Zn.



*AAS Machine*

## Research Activities

The Department's supervisors led in supervision of 30 PhD and 36 Masters projects in various fields.

## International Links and Collaborations

As part of efforts to promote innovation and technology transfer, the Department linked and collaborated with the following:

Title	Industry Partners	Details	Duration
University industry cooperation anchored on Science, Technology, Engineering and Mathematics.	Memorandum of cooperation between university of Nairobi & MCA group (Manuel Couto Alves group)	University – industry cooperation anchored on science, technology engineering and mathematics. The purpose of the cooperation is to enhance the capacity of both institutions' to fulfill their corporate objectives through educational and industrial engagements.	5 years

## Publications

The Department produced the following Journal publications in the year 2020.

Author	Title	Journal	Date
Hilda Dinah Kyomuhimbo, Immaculate Nyambura Michira, Francis B. Mwaura, Solomon Derese, Usisipho Feleni, Emmanuel I Iwuoha	Silver–zinc oxide nanocomposite antiseptic from the extract of <i>Bidenspilosa</i>	SN Applied Sciences Volume: 1 Issue: 7 Pages: 681 Publisher: Springer International Publishing	1 <sup>st</sup> July 2019
Rahab W Kamau, Jacob O Midiwo, Quintino A Mgani, Veronica M Masila, Leonidah K Omosa, Regina N Bwire, Melissa R Jacob, Frank T. Wiggers, Ilias Muhammad	Oleanolic Acid and other Compounds Isolated from <i>Cordia africana</i> Lam which Inhibit Vancomycin Resistant <i>Enterococcus</i> .	Pharmacognosy Communications Volume: 9 Issue: 3 DOI: 10.5530/pc.2019.3.19	1 <sup>st</sup> July 2019
Victor Kuete, Leonidah K Omosa, Jacob O Midiwo, Oğuzhan Karaosmanoğlu, Hülya Sivas	Cytotoxicity of naturally occurring phenolics and terpenoids from Kenyan flora towards human carcinoma cells	Journal of Ayurveda and Integrative Medicine Volume:10 Issue:3 Pages: 178-184 <a href="https://doi.org/10.1016/j.jaim.2018.04.001">https://doi.org/10.1016/j.jaim.2018.04.001</a>	1 <sup>st</sup> July 2019
R Mogwasi, DK Kariuki, MZ Getenga, V Nischwitz	Comparison of aqueous and enzymatic extraction combination with sequential filtration for the profiling of selected trace elements in medicinal plants from Kenya	Journal of Trace Elements in Medicine and Biology Volume: 54 Pages: 1-7 Publisher: Urban & Fischer <a href="https://doi.org/10.1016/j.jtemb.2019.03.003">https://doi.org/10.1016/j.jtemb.2019.03.003</a>	1 <sup>st</sup> July 2019

Author	Title	Journal	Date
P.K Tum	Spectral and Sorption Characteristics of Acid Orange II and Methylene Blue Dyes on TiO <sub>2</sub> photocatalyst	International Journal of Science and Technology Volume: 7 Issue:7 Pages: 27-34 DOI No.:10.24940/theijst/2019/v7/i7/ST1907-023	July 2019
CM Gerrard, JM Wanjohi	Factors influencing the implementation of prisons health projects in Kenya: A case of prisons in Meru region	©2019 International Academic Journal of Information Sciences and Project Management (IAJISPM) ISSN 2519-7711 Volume: 3 Issue: 3 Pages: 185-209	5 <sup>th</sup> July 2019
Ruth Anyango Omole, Mainen Julius Moshi, Matthias Heydenreich, Hamisi Masanja Malebo, Jeremiah Waweru Gathirwa, Richard OworOriko, Leonida Kerubo Omosa, Jacob Ogweno Midiwo	Antiplasmodial Biflavanones from the Stem Bark of <i>Garcinia burchananii</i> Engl.	Pharmacognosy Communications Volume: 9 Issue: 3 Pages: 96-99 Publisher: EManuscript Services DOI: 10.5530/pc.2019.3.20.	1 <sup>st</sup> July 2019
Kennedy Olale, Abiy Yenesew, Ramni Jamnadas, Andrew Sila, Keith Shepherd	A simple field based method for rapid wood density estimation for selected tree species in Western Kenya	Elsevier Vol. 5; Pages: e00149 <a href="https://doi.org/10.1016/j.sciaf.2019.e00149">https://doi.org/10.1016/j.sciaf.2019.e00149</a>	27 <sup>th</sup> Aug 2019
Hiram Kirimi, John Wanjohi	Factors Influencing Use of Alternative Dispute Resolution in Construction Projects: Case of Imenti North Sub-County, Meru County	International Academic Journal of Information Sciences and Project Management Volume 3, Issue 4, pp. 572-602	9 <sup>th</sup> Aug 2019
Majau, D.K. & Wanjohi, J.	Factors Influencing Employee Job Performance in County Government Departmental Projects: A Case of Meru County Government, Kenya	International Academic Journal of Information Sciences and Project Management Volume 3, Issue 4, pp. 518-543 518	6 <sup>th</sup> Aug 2019
Mary Njenga, Nancy Karanja, Jacob Kithinji, Ramni Jamnadaa, Miyuki Iiyama, Aya Yonemitsu	Evaluating Fuel Briquette Technologies and their Implications on Greenhouse Gases and Livelihoods in Kenya	World Agroforestry- Research Data Repository <a href="https://doi.org/10.34725/DVN/HTPERS">https://doi.org/10.34725/DVN/HTPERS</a> , World Agroforestry - Research Data Repository, V1	6 <sup>th</sup> Aug 2019



Author	Title	Journal	Date
Daniel Buyinza, Li Jun Yang, Solomon Derese, Albert Ndakala, Paolo Coghi, Matthias Heydenreich, Vincent Kam Wai Wong, Heiko M Möller, Abiy Yenesew	Cytotoxicity of isoflavones from Millettia dura	Natural Product Research Pages: 1-4 Taylor & Francis <a href="https://doi.org/10.1080/14786419.2019.1660335">https://doi.org/10.1080/14786419.2019.1660335</a>	5 <sup>th</sup> Sept 2019
Fozia A Adem, Victor Kuete, Armelle T Mbaveng, Matthias Heydenreich, Andreas Koch, Albert Ndakala, Beatrice Irungu, Abiy Yenesew, Thomas Efferth	Cytotoxic flavonoids from two Lonchocarpus species	Natural Product Research Volume: 33 Issue: 18 Pages: 2609-2617 Publisher: Taylor & Francis <a href="https://doi.org/10.1080/14786419.2018.1462179">https://doi.org/10.1080/14786419.2018.1462179</a>	17 <sup>th</sup> Sept 2019
R Mogwasi, DK Kariuki, ZM Getenga	Effect of Farm Additives on the Potential Bioavailability of Some Nutritional Elements from Kenyan Wild Plants	Biological Trace Element Research Pages: 1-11 Publisher: Springer US <a href="https://doi.org/10.1007/s12011-019-01855-8">https://doi.org/10.1007/s12011-019-01855-8</a>	10 <sup>th</sup> Sept 2019
Harry Amuguni Chanzu, John Mmari Onyari, Paul Mwanza Shiundu	Brewers' spent grain in adsorption of aqueous Congo Red and malachite Green dyes: Batch and continuous flow systems	Journal of Hazardous Materials Volume: 380; Pages: 120897 Publisher: Elsevier <a href="https://doi.org/10.1016/j.jhazmat.2019.120897">https://doi.org/10.1016/j.jhazmat.2019.120897</a>	15 <sup>th</sup> Dec 2019
JM Mwaniki, JO Onyatta, AO Yusuf	Adsorption of Heavy Metal Ions from Aqueous Solutions and Wastewater using Water Hyacinth Powder	International Journal of Trend in Scientific Research and Development (IJTSRD) Volume: 4 Issue:1	Dec 2019
Veronica M Masila, Albert J Ndakala, Robert Byamukama, Jacob O Midiwo, Rahab W Kamau, Mei Wang, Mallika Kumarihamy, Jianping Zhao, Matthias Heydreich, Ilias Muhammad	Synthesis, structural assignments and anti-infective activities of 3-O-benzyl-carvotacetone and 3-hydroxy-2-isopropyl-5-methyl-p-benzoquinone	Natural Product Research Pages:1-9 <a href="https://doi.org/10.1080/14786419.2020.1716346">https://doi.org/10.1080/14786419.2020.1716346</a>	27 <sup>th</sup> Jan 2020
Kiplangat Rop, Damaris Mbui, George N Karuku, Immaculate Michira, Njagi Njomo	Characterization of water hyacinth cellulose-g-poly (ammonium acrylate-co-acrylic acid)/nano-hydroxyapatite polymer hydrogel composite for potential agricultural application	Results in Chemistry Volume: 2 Pages: 100020 Publisher: Elsevier <a href="https://doi.org/10.1016/j.rechem.2019.100020">https://doi.org/10.1016/j.rechem.2019.100020</a>	1 <sup>st</sup> Jan 2020

Author	Title	Journal	Date
Ruth Anyango Omole, Mainen Julius Moshi, Muhammad Ilias, Walker Larry, Hamisi M Malebo, Leonida Kerubo Omosa, Jacob O Midiwo	In vitro Antiplasmodial and Cytotoxic activity of Three Medicinal Plants used Traditionally for Treatment of Malaria.	Pharmacognosy Communications Volume: 10 Issue: 1 DOI:10.5530/pc.2020.1.2	1 <sup>st</sup> Jan 2020
Moses Andima, Paolo Coghi, Li Jun Yang, Vincent Kam Wai Wong, Chrispus Mutuku Ngule, Matthias Heydenreich, Albert Jairo Ndakala, Abiy Yenesew, Solomon Derese	Antiproliferative Activity of Secondary Metabolites from <i>Zanthoxylum zanthoxyloides</i> Lam: In vitro and in silico Studies.	Pharmacognosy Communications Volume: 10 Issue: 1 DOI: 10.5530/pc.2020.1.8	1 <sup>st</sup> Jan 2020
Patrick Kimutai Tum, David K Kariuki	Photocatalytic Degradation of 4-Chlorophenol by Titanium Dioxide: Role of Annealing Temperature and Morphology	International Journal of Innovative Research and Development Volume: 8; Issue: 11 Pages: 235-244	14 <sup>th</sup> Feb 2020
Valerie Bauza, Vincent Madadi, Robinson Ocharo, Thanh H Nguyen, Jeremy S Guest	Enteric pathogens from water, hands, surface, soil, drainage ditch, and stream exposure points in a low-income neighborhood of Nairobi, Kenya	Science of The Total Environment Volume: 709 Pages: 135344 Publisher: Elsevier <a href="https://doi.org/10.1016/j.scitotenv.2019.135344">https://doi.org/10.1016/j.scitotenv.2019.135344</a>	20 <sup>th</sup> March 2020
Richard Oriko Owor, Kibrom Gebreheiwot Bedane, Yolande Ikala Openda, Sebastian Zühlke, Solomon Derese, George Ong'amo, Albert Ndakala, Michael Spiteller	Synergistic anti-inflammatory activities of a new flavone and other flavonoids from <i>Tephrosia hildebrandtii</i> Vatke	Journal: Natural Product Research Pages: 1-8 Publisher: Taylor & Fran <a href="https://doi.org/10.1080/14786419.2020.1736065">https://doi.org/10.1080/14786419.2020.1736065</a>	31 <sup>st</sup> March 2020
Richard Oriko Owor, Kibrom Gebreheiwot Bedane, Sebastian Zühlke, Solomon Derese, George Otieno Ong'amo, Albert Ndakala, Michael Spiteller	Anti-inflammatory Flavanones and Flavones from <i>Tephrosia linearis</i>	Source: Journal of Natural Products Publisher: American Chemical Society and American Society of Pharmacognosy <a href="https://doi.org/10.1021/acs.jnatprod.9b00922">https://doi.org/10.1021/acs.jnatprod.9b00922</a>	10 <sup>th</sup> March 2020

Author	Title	Journal	Date
Vaderament-A Nchiozem-Ngnitedem, Leonidah Kerubo Omosa, Solomon Derese, Pierre Tane, Matthias Heydenreich, Michael Spiteller, Ean-JeongSeo, Thomas Efferth	Two new flavonoids from <i>Dracaena usambarensis</i> Engl.	Phytochemistry Letters Volume: 36 Pages:80-85 <a href="https://doi.org/10.1016/j.phytol.2020.01.001">https://doi.org/10.1016/j.phytol.2020.01.001</a>	1 <sup>st</sup> April 2020
Emily B Chebet, Joshua K Kibet, Damaris Mbui	The assessment of water quality in river Molo water basin, Kenya	Applied Water Science Volume:10 Issue:4 Pages:1-10	April 2020
Olivia Osiro, Bernina Kisumbi, David Kariuki, Loice Gathece	Implications of the Minamata Convention on Mercury on Oral Health in Kenya	Kenya Policy Briefs Volume: 1 Issue: 1 Pages: 17-18	26 <sup>th</sup> April 2020
Chispine M Oloo, John M Onyari, Wycliffe C Wanyonyi, John N Wabomba, Veronica M	Adsorptive removal of hazardous crystal violet dye from aqueous solution using <i>Rhizophoramucronata</i> stem-barks: Equilibrium and kinetics studies	Environmental Chemistry and Ecotoxicology Publisher: Elsevier <a href="https://doi.org/10.1016/j.enceco.2020.05.001">https://doi.org/10.1016/j.enceco.2020.05.001</a>	8 <sup>th</sup> May 2020

## Papers Presented at Conferences

Conference	Theme	Paper Presented	Date
Expert consultative meeting for sustainable global monitoring of POPs under the Stockholm convention	Expert consultative meeting for sustainable global monitoring of POPs under the Stockholm convention	Cytotoxic flavonoids from two <i>Lonchocarpus</i> species by Fozia Ali Adem	12 <sup>th</sup> Feb 2019
Pan Africa Chemistry Network Congress 2019	Riches of the Natural world: sustainable use of Africa's natural products and materials	Cytotoxicity of plumbagin, rapanone and 12 other naturally occurring quiniones from Kenyan flora towards human carcinoma cells presented by Prof. Leonidah Omosa Kerubo	5 <sup>th</sup> -7 <sup>th</sup> Nov 2019, Addis Ababa
Pan Africa Chemistry Network Congress 2019	Riches of the Natural world: sustainable use of Africa's natural products and materials	The Kenyan higher plant diversity: a source of anti-parasitic compounds for neglected tropical diseases presented by Prof. Jacob Midiwo	5 <sup>th</sup> -7 <sup>th</sup> Nov 2019, Addis Ababa

Conference	Theme	Paper Presented	Date
Pan Africa Chemistry Network Congress 2019	Riches of the Natural world: sustainable use of Africa's natural products and materials	Red hot compounds from the Red hot poker plant, Kniphofia, and related taxa presented by Prof. Abiy Yenesew	5 <sup>th</sup> -7 <sup>th</sup> Nov 2019, Addis Ababa
Pan Africa Chemistry Network Congress 2019	Riches of the Natural world: sustainable use of Africa's natural products and materials	Anti-vancomycin-resistant Enterococcus faecum and E.Faecalis activities of (-)-Gossypol and Derivative from Thespeciagarckeana	5 <sup>th</sup> -7 <sup>th</sup> Nov 2019, Addis Ababa
Pan Africa Chemistry Network Congress 2019	Riches of the Natural world: sustainable use of Africa's natural products and materials	Rotenoids from East African Plants-Structure, Stereochemistry and Biological Activity	5 <sup>th</sup> -7 <sup>th</sup> Nov 2019, Addis Ababa
Royal Society of Chemistry	14 <sup>th</sup> International Conference on Materials Chemistry (MC14)	Ruthenium (II) Oxathia Crown Ether Complexes: synthesis, Characterization and their Application in the Detection of Mercury (II) Ions'	8 <sup>th</sup> -11 <sup>th</sup> July 2019

### Consultancies/Research Projects

Funder	Project	PI/Project Leader	Amount (currency)	Duration	Comments
Bill gates	Zeolite hydrogel nano-mop for contraception	Dr. Benson Wamalwa	US Dollars 100,000	01/05/2010 to 30/11/2021	Active
Grand Challenges Canada	Saving lives at birth a loyally program		USD 331383	01/01/2016 to 31/12/2018	Active
Grand Challenge Canada	Bar codes for improved child vaccination and famine nutrition		USD 113000	23/03/2012 to 01/04/2014	Active
IDRI	Infectious diseases research	Prof. Jacob Midiwo		10/05/2011	Active
Uppsala University	Ken02 chemistry		Sek 2,881,975	01/01/2011 to 31/12/2017	
National Research Fund (NRF)	Xploring Kenya Biodiversity Chemistry, Phamacology and Commercialization		Euro 44,000	01/04/17 to 31/05/2018	Active

Funder	Project	PI/Project Leader	Amount (currency)	Duration	Comments
GEF-NPIF (Kenya Wildlife Service)	Developing the microbial biotechnology industry from soda lakes in Kenya	Prof. L. Kerubo	USD 440,000	31/08/2017	Active
ICIPE	Promoting small holder access to fungal bio pesticides through public private partnership in East Africa		USD 54,758	01/03/2018 to 30/12/2021	Active
The Welcome Trust	Cement dust exposure and related effects in Kenya	Dr. Faridah Were	KES400,000	13/10/2017	Active
Uppsala University	Capacity building for PhD students	Prof. Lydia Njenga	SEK 101,760	9/02/2016 to 31/05/2016	Active

### Staff Portfolio

Designation	No. of Staff
Professor	4
Associate Professor	8
Senior Lecturers	9
Lecturers	15
Tutorial Fellows	3
Principal Technologist	1
Chief Technologist	1
Assistant Chief Technologist	2
Senior Technologist DEF	8
Technologist ABC	9
Technical Assistant II	1
Document list	1
Senior Administrative Assistant	1
Secretary	1
<b>Total</b>	<b>41</b>

### Active Grants

Title	Amount (Ksh)	Coordinator
To Establish NMR Centre of Excellence	42,796,236	Prof. John Onyari
Strategic Partnership For Higher Education	2,669,437,652	Prof. John Onyari
Promoting Smallholder Access to Fungal Biopesticides	120,000	Prof Leonida Kerubo
PAN African Chemistry Network	509,986,500	Prof J. Midiwo
Kenya GMP2 POPS Project	1,645,045,490	

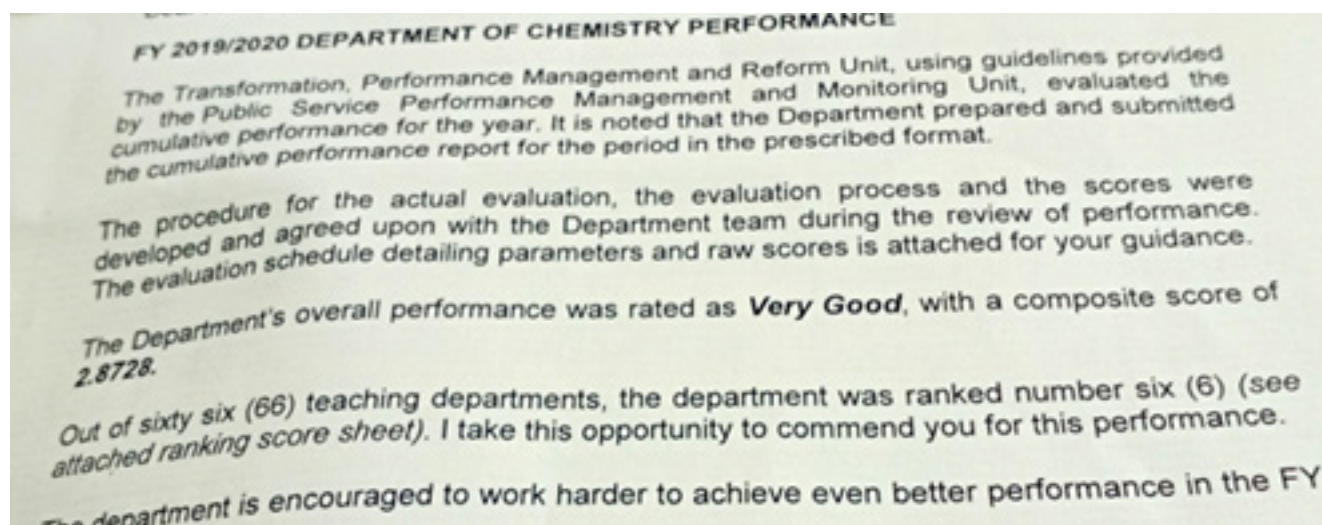
## Programmes Engaging Guest Lecturers/Speakers

Guest Lecturer/ Speakers	Programme	Details	Date
Dr. Wanyonyi, Wycliffe	Project Management	Part-Time lecturer	11 <sup>th</sup> January 2019
Prof. H.C. Michael	Chemical Interactions of Plant-microbes	Chemical Interactions of Plant- microbes	1 <sup>st</sup> April 2019
Dr. Cecil Kingondu	Seminar	Specific Capacitance-pore Texture Relationship of Biogas Slurry Mesoporus Carbon/MnO <sub>2</sub> composite Electrodes for supercapacitors.	10 <sup>th</sup> April 2019
Dr. Agnieszka Wegrzyn	Synthesis, characterization and application of new materials obtained from natural and synthetic layered minerals in environmentally friendly adsorption and catalytic processes	Synthesis, characterization and application of new materials obtained from natural and synthetic layered minerals in environmentally friendly adsorption and catalytic processes presented by Dr, Agnieszka Wegrzyn, Jagiellonian University in Krakow, Faculty of Chemistry	3 <sup>rd</sup> July 2019
Prof. Fulgentius Nelson Lugenwa	Organic Chemistry	Visiting Professor from Pennsylvania State University-York, US	1 <sup>st</sup> Sep 2019

## Achievements

### Performance Contract

The Performance contract between the School of Physical Sciences Management Board and Department of Chemistry for the period 1st July 2020 and 30th June 2021 was signed on 1st July 2021. The Performance matrix was circulated to all staff. It will be measured by its success in meeting or surpassing the performance targets set out in the Performance matrix.



### Sub-Regional Lead Poisoning Prevention Week

The Department hosted a Sub-Regional Lead Poisoning Prevention Week of action campaigns to ban import, export and use of lead paint across the East Africa region. It was held Online on 29<sup>th</sup> October 2020.

**SUB-REGIONAL LEAD POISONING PREVENTION WEEK OF ACTION**  
**26<sup>TH</sup> TO 31<sup>ST</sup> OCTOBER 2020**  
**INTENSIFIED CAMPAIGNS TO BAN THE IMPORT, EXPORT, MANUFACTURE, SALE AND USE OF LEAD PAINT ACROSS THE EAST AFRICA REGION**  
**VIRTUAL EVENT: HOSTED BY THE DEPARTMENT OF CHEMISTRY, UNIVERSITY OF NAIROBI**

**BAN LEAD PAINT**  
LEARN the Risks  
JOIN the Action  
ELIMINATE Lead Paint

**EVENT SPONSORS**  
Basco Paints  
Dura Coat

**PARTNERS**  
KEBS  
KIRDI  
NEMA  
UNEP  
World Health Organization  
Ministry of Health  
Ministry of Industrialization, Trade and Entrepreneurial Development

[#ILPPW2020 #BanLeadPaint](http://www.who.int/lead_campaign/en/#ILPPW2020)  
[banleadpaint@uonbi.ac.ke](mailto:banleadpaint@uonbi.ac.ke)

The aim of International Lead Poisoning Prevention Week is to draw attention to the health impacts of lead exposure, highlight efforts by countries and partners to prevent childhood lead exposure, and accelerate efforts to phase out the use of lead in paint.

The sub-regional Event sponsors are University of Nairobi, Basco Paints, Dura Coat and the partners in this campaign includes; KEBS, The Architectural Association of Kenya, UNEP, KIRDI, NEMA, Ministry of Environment & Forestry, Ministry Health, World Health Organization and many other Partners.

## Distribution of Hand Washing Soap

UON-BASF Chiroklean Liquid Soap hand wash distribution to the University of Nairobi community.



*The University of Nairobi, Department of Chemistry in collaboration with BASF Company distributed Chiroklean Hand wash to the University of Nairobi community. The event was graced with the presence of the UoN Vice Chancellor, Prof. Stephen Kiama.*

## Chemistry Staff Team Building



*Corporate Social Responsibility/Outreach Services*

1. Faridah Hussein Were: Chairlady, Technical Committee for the East Africa Standard for Paints and Allied Products & Member of Advisory Council of Lead Alliance Partner.
2. Prof. D.K Kariuki, External Examiner, University of Zambia & University of Malawi, Harzadious & Toxic Matyerials Committee member, NEMA, Threshold Pollution in Waste Water Committee, WARMA.
3. Dr. Wanjohi John: External Examiner; Kenyatta University.
4. Dr. Derese, Solomon: External Examiner; Masinde Muliro & Karatina University.

## Other Activities

### Conference/Workshop/Symposium

The Department organized the following events;

- i) Revised chemistry undergraduate programs: Bachelor Of Science Chemistry, Bachelor of Industrial Chemistry and Bachelor of Analytical Chemistry.
- ii) Launch of Uon-Basf Chiroklean Liquid Soap Hand Wash

## Challenges

- i) Delay in completion of thesis by postgraduate students.
- ii) Procurement process (EPMIS) – delay in procuring and delivery of lab materials.
- ii) Virtual teaching challenges against face to face



## Institute for Climate Change and Adaptation



*ICCA Students fieldwork in Kilifi County*

### A Brief Historical Background of ICCA

The Institute for Climate Change and Adaptation traces its beginnings to December 2010 when a team of researchers from the University of Nairobi and Maseno University sought and received funding from the Open Society Institute to establish the Climate Change Adaptation Research Institute (CARI) at the University of Nairobi. The name was subsequently changed to what it is at present: Institute for Climate Change and Adaptation, or simply: ICCA, at the University of Nairobi.

The ICCA is unique in both its pedagogical approach and in its choice of concentration areas. Its institutional programmes are envisaged to:

1. Build the human capacity needed to address climate change and adaptation that meet African societies unique needs, by offering University-based curricula for conventional degrees and short training courses for a wide range of professionals from all sectors of society;
2. Encourage action-oriented research activities, including research into climate change adaptation technologies, that will help improve the climate adaptation capacity of Africa as a continent;
3. Provide a framework for national and regional policy assessments and advice to governments and other public and private sector actors, and include the grassroots and various communities within the African region in its programme execution and implementation of research findings.

### Objectives of the ICCA

ICCA's programme objectives are summarised to include the following:

1. Provide formal training on Climate Change and Adaptation at postgraduate level (Masters and PhD levels initially), and later at the undergraduate level;
2. Conduct professional Short courses for various climate change and adaptation actors and stakeholders in the public and private sectors including for Non-Governmental Organisations (NGOs);
3. Undertake Climate Change and Adaptation research and participate in knowledge exchange with other global Climate Change actors and institutions;

4. Undertake action-oriented community outreach programmes for implementation of practical climate change and adaptation options; and
5. Provide research and evidence-based policy advice on Climate Change and Adaptation to governments and public sector institutions in Kenya and Africa.

## Thematic Areas

The Institute pursues its programmes on the basis of the following five thematic areas:

1. Water, Environment and Ecosystems
2. Climate Risk Management and Food Security
3. Human Dimensions and Health
4. Policy and Communications
5. Technologies

## Programmes Offered

1. Master of Climate Change and Adaptation (MCCA)
2. PhD in Climate Change and Adaptation

## Research and Community Projects

1. REACH Project - PI, Professor Daniel Olago.
2. BRECCIA Project - PI, Dr. Gilbert Ouma (<http://www.gcrf-breccia.com/>).
3. Development Corridors Partnership - PI, Professor Daniel Olago.
4. African Great Lakes Information Platform (AGLI) Project - PI, Professor Daniel Olago
5. TSITICA (ARUA) Project - Co-PI, Dr. George Outa.
6. Science and Policy Interface Programme: Dan Olago and George Outa

## Institutional Achievements

ICCA is meeting its core mission, supported by strong academic programs and founding academic staff who are committed to its mission of aiming to further improvements in organizational performance and student success.

The strongly embedded 'Trans-disciplinary Approach' to learning and education has ensured adoption and acceptability by students, researchers and community stakeholders. Students from many parts of the world have not only enrolled at ICCA but are accessing world-class education through the early embrace of the to the ICT platforms by ICCA staff to counter the challenges that are being experienced due to COVID 19

ICCA maintains a strong and rigorous academic culture that provides students with knowledge, skills, and competencies needed to further their career way beyond the academia. Our graduates are able to find employment in the National Government, County Governments, teaching and research institutions, Non-Governmental Organisations, business and in self-employment. Since inception a total of 143 Masters and 186 PhD students have enrolled a reflection of the popularity of the programs.

Our Sustainability Initiatives encompass economic, environmental and social equity principles, and a myriad of activities, projects and practices across the campus and in the community. Through this holistic approach ICCA has made sustainability a focused effort of its training;

ICCA is contributing immensely to the revenue kitty of the University of Nairobi in both fees and research grants. In 2020/2021 academic year, the Institute was able to raise Kshs 6,732,000 in fees and 36,000,000 in research grants. Since inception, the institute has attracted more than Kshs 100 million in terms of research grants.

## Student Enrolment 2020-2021

The Institute attracted 17 Masters and 15 PhD students.

## Staff Portfolio

The ICCA was established with the positions of a Director, three Co-coordinators and Administrative Staff.

The ICCA has an academic staff establishment of six comprising Professor, Associate Professor, Senior Lecturer, Lecturer and two Tutorial Fellows.

Designation	No. of Positions
Director	1
Coordinators	5
Associates	5
Tutorial Fellows	2

## Strategic Issues

Teaching and learning, the primary objective of the University is teaching and learning. So is also the first objective of the Institute. The Institute builds competently trained and enabled postgraduate students who are capable of competing at an international level. Above all, the graduates would be trained to work in any environment of the society; they will be society leaders in moulding and shaping a future where human activities have threatened the planet. A future that is experiencing resources quickly depleted through unsustainable lifestyles.

## Any Other Pertinent Issues

In 2020, the Institute bid farewell to the founding Director, Prof. Shem Wandiga, a commensurate academic and a pioneer in the nexus between environmental studies and chemistry. The Institute is now in the capable hands of Prof Daniel Olago, a leading researcher in the field of Earth Sciences. We wish Prof. Wandiga the best in his future endeavours.

# College of Education and External Studies

## School of Education and External Studies

### Vision

To be a leading centre of excellence in human capital development in the education sector for sustainable development.

### Mission

To provide quality Education and maintain a leadership role in human capital development; generation of new knowledge, ideas and innovative pedagogical skills, involvement in research, consultancy and service leading to enhancement of quality of life for humanity.

### Foreword

The College of Education and External Studies (CEES) is one of the six Colleges that constitute the University of Nairobi. It is situated near Kikuyu town, about 25 Km West of Nairobi. Presently it has a student population of approximately 7,000, enrolled and in residence in both the undergraduate and postgraduate programmes.

The College meets the expectations of its stakeholders by: ensuring that the programmes offered meet the national and international requirements for teacher preparation; ensuring that the curricula are reviewed from time to time. In addition, the programmes are demand-driven and they meet the market needs. The College has established linkages and collaborations with similar institutions in various parts of the world thus providing a conducive working environment and ensuring good relations with the outside community. These linkages and collaborations benefit the College in the development of programmes to meet the needs of stakeholders; enhance capacity building, facilitate research and publication, promote staff and student exchange programmes, and improve infrastructural facilities and benchmark academic programmes to ensure quality.

The College focuses on market-driven programmes (ranging from diploma to degree) in education and sports sciences, using different modes of instructional delivery, though the face-to-face mode is predominant. The College has a pool of qualified and competent teaching and non-teaching staff, sufficient infrastructure and a well-co-ordinated transport service.

The School of Education is the only school in the University of Nairobi with the mandate of offering quality Education in the teaching profession in support of academic pursuits. The school has been the Education arm of the University of Nairobi extending services to not only students but also other departments of the university through pedagogical trainings.

### Strategic Objectives

Strategic issues are key challenges facing an organization and that need to be addressed if the organization is to improve its performance and realize its mandate. In the current strategic plan period, the activities of the College revolve around seven strategic issues:

### Governance, Leadership and Culture

1. Resources, Facilities and Infrastructure
2. Teaching and Learning
3. Research, Innovation and Technology
4. Competitiveness and Image of the College
5. Collaboration and Partnerships
6. Schools, Institutes, Centers, Departments and Programmes

**Arising from the strategic issues, the following seven strategic objectives will be pursued during the plan period:**

1. To manage the School efficiently.
2. To expand the School resource base and enhance productivity
3. To produce quality and holistic graduates.
4. To contribute to the development of society through educational research, innovation and technology.
5. To enhance the competitiveness and image of the College.
6. To enhance value-adding partnerships and collaborations.
7. To create new schools, departments and programmes

## Structure of the School

The School has a branch in Kenya Science Campus offering Science educational courses

The School of Education has four departments, namely,

- i) Department of Educational Planning and Administration
- ii) Department of Educational Foundations
- iii) Department of Educational Communication and Technology
- iv) Department of Physical Education and Sport

Additionally, the department of psychology in the Faculty of Arts offer courses in Educational Psychology.

School of Education has established rich programmes in the following areas:

1. Bachelor of Education Arts
2. Bachelor of Education Science
3. Bachelor of Education ICT
4. Bachelor of Education Early Childhood
5. Bachelor of Education Physical Education
6. Diploma in Early Childhood Education
7. Enhancement programme

## Collaboration

The School of Education collaborates with the following schools to support teaching in subjects content.

1. School of Physical and Biological Sciences offer teaching in Bachelor of Education Sciences.
2. School of Computing and Information Sciences offering teaching in Bachelor of Education Information Communication Technology
3. School of Business offers teaching in education for students taking Business and Economics
4. Faculty of Arts offers teaching in arts based teaching subjects

## Staff Portfolio

Grades	Dean's office	Dept. Com. Tech	Dept. Educ. Foundations	Dept. Educ. Admin and Planning	Dept. P.E & Sport
Professor & Equivalent	1	2	2	2	0
Associate Professor & Equivalent	1	4	2	3	0
Senior Lecturer		7	3	0	0
Lecturer & Equivalent	1	9	9	16	6

Tutorial Fellow	0	1	0	0	0
EF	0	1	0	0	0
CD	2	1	0	0	0
A	1	0	0	0	0
AB	0	1	0	0	0
IV	2	0	1	1	0
III/IV	0	0	1	1	3
III	1	1	0	0	0
<b>TOTAL</b>	<b>7</b>	<b>27</b>	<b>18</b>	<b>23</b>	<b>9</b>

## Achievements and Challenges

The School has made the following achievements:

Date	Item	Comment
	Joint/dual Degree programmes	Yet to be implemented in the School.
11/10/2020 to 22/12/2020	Online Thesis defense	4 PhD Students defended successfully. 10 Master Students defended successfully
3/9/2020	Criteria for academic staff recruitment and promotion	Proposed criteria for academic staff was circulated to staff on 22/10/2020
15/4/2020	Mainstreaming of online teaching and learning	B. Ed and Masters teaching programmes were carried out from April 2020 and still on to date.
15/4/2020	Online solutions for university business	Students' issues are received through Dean's email and responses given to students and stakeholders through the same.
11/7/2020	Online examinations	The first online exam were done as follow: Supplementary/special exams July/August 2020; Year one to year four main exams July/August 2020
11/11/2020	Online student appeals	Two students in the BEd. programme appealed for remarking of exams.
18\11/2020	Online UNSA elections, 2020	Was successfully held online and the following post were filled: 1. Chairman - Mudibo Bwire 2. Vice Chair - Yegon Mercy 3. Secretary General - Orina Maneno 4. Treasurer - Wainaina Jacqueline 5. Sports and Social Welfare - Ouma Kelvin Otieno
25/9/2020	Virtual 63 <sup>rd</sup>	Graduated students during the 63 <sup>rd</sup> graduation as follows: BEd Arts - 186                      BEd (ICT) - 10 ECD - 27                              Masters - 27 BEd (P.E) - 8

Date	Item	Comment
11/12/2020	64 <sup>th</sup> Graduations	Graduated students during the 64 <sup>th</sup> graduation Masters - 34 ECD - 22 BEd (Arts) - 226 BEd (ICT) - 7 BEd (Science) - 98 Diploma in ECE - 1
10/12/2020	Virtual UoN @ 50 Celebrations	Five staff of the School were given awards during December 2020 celebrations
31/9/2020	Online Registrations of 1 <sup>st</sup> year students	BEd Science registered - 202 BEd Arts registered 511 students.
1/7/2020	Appointment of Emeritus Professor	Guideline for appointment was developed and approved in July 2020.
1/9/2020	Student progression	Only students who have passed are progressed to the next level.
2/12/2020	Pardon of expelled students	Three students were pardoned and reinstated.
3/12/2020	Online training of staff on Pedagogy	One training was held in December 2020 through virtual platform.
	Over 50 webinars	- Dec 3rd Webinar 1: Boosting 21 <sup>st</sup> Century Skills – Invention Pedagogy and Collaboration - Dec 15-16 Webinar 2 Trends in Higher Education pedagogy Centre for Pedagogy and Andragogy (CEPA) University - The school successfully held an international conference on “Decolonizing Education” with participants from UK on 16 <sup>th</sup> January 2020
11/2/2020	Online staff recruitment and Promotion	The University of Nairobi Senate approved criteria for conducting
8/8/2020	Anchoring the pivotal role of the course leader, in examination process	Chairmen delegate their role to a leader in the specialized areas in the department.

### Department of Educational Foundations Achievements in 2020

Date	Item	Comment
16 <sup>th</sup> January 2020	International conference on “Decolonizing Education”	The departmental successfully held an international conference with participants from UK
March 2020	Training on online teaching and examinations	The staff were trained on the conducting of lectures and examination following the closure of the university for face to face teaching due to the COVID-19 Pandemic
April- June 2020	Online teaching	The department adopted on line teaching to ensure continuity of teaching

Date	Item	Comment
June – July 2020	Online examination	The departmental successfully conducted online examinations. This was in line with the senate guidelines on conducting online examinations
May – December 2020	Increase in PhD Student enrolment	The departmental registered an increase in the number of PhD applicants with a total of 8 new students were admitted

### Department of Physical Education and Sport Achievements in 2020

Date	Item	Comment
March 2020	Training on online teaching and examinations	The staff were trained on the conducting of lectures and examination following the closure of the university for face to face teaching due to the COVID-19 Pandemic
April - June 2020	Online teaching	The Department adopted on line teaching to ensure continuity of teaching
June - July 2020	Online examination	The Departmental successfully conducted online examinations. This was in line with the senate guidelines on conducting online examinations
20 <sup>th</sup> August 2020	BEd. Programme	The BEd (PE & Sports) programme was successfully reviewed and approved by Senate.
September 2020	Graduation	The Department processed and presented students during the online graduation ceremony.
November 2020	Workshop on the UNESCO International Charter	The Department held a two-day workshop on the UNESCO International Charter of Physical Education

### Technology

The School continued using IT to manage its activities:

- i) Students information management system - SMIS
- ii) Human Resources Management - HRMIS
- iii) Leave Processing - ALMIS
- iv) ISO Audit Reports - Q-PULSE
- v) Staff Performance appraisal - USPAS

### Performance Contracting

The School of Education continues to comply with the Performance Contract as a performance indicator between University Management and the School. The School has further cascaded the Performance Contract to the Departments

### ISO 9001:2015 Standards

The School continues to be audited by External and Internal Quality Auditors.



## Challenges

- i) Low level of funded research activity in the College
- ii) Low staff morale due to lack of appropriate Human Resource structures
- iii) Delayed disbursement of funds for practicum exercises
- iv) Lack of office space, equipment and internet connectivity for academic staff
- v) Inadequate Library Facilities in the regional centres and Kenya Science Campus
- vi) Inadequate student and staff welfare facilities and services
- vii) Inadequate power backup supply
- viii) Inadequate ICT infrastructure and connectivity at Kikuyu Campus and regional learning centres
- ix) Insufficient staffing
- x) Lack of an established educational psychology department in the School
- xi) Lack of an established early childhood education department in the college
- xii) Slow rate of writing and converting courses into e-Learning format
- xiii) Lack of support from servicing schools leading to failure to teach, failure to administer examinations and delays in submission of results.
- xiv) Students indiscipline
- xv) Lack of Water
- xvi) Erratic powerfully and lack of power generator
- xvii) Low staffing levels
- xviii) Slow procurement process

## Projections

- i) Re-branding, restructuring and re-engineering of the School of Education operations
- ii) Completion of water borehole
- iii) Installation of WIFI in common areas to enable students continue with online teaching and learning
- iv) Installation of Power generator
- v) Mounting new programmes in Diploma in Education emergencies and aligning syllabuses to CUE format.

# Department of Educational Administration and Planning

## Introduction

Welcome to the Department of Educational Administration and Planning, one of the departments in the School of Education. The department takes cognizance of the demand within the educational sector for:

- i) Effective educational administrators and managers
- ii) Educational planners and management specialists
- iii) Curriculum developers
- iv) Corporate governors in education
- v) Specialists in education in emergencies

## Programmes Offered

- i) Master of Education
- ii) Doctor of Philosophy (PhD)
- iii) Doctor of Education (EdD)

## Strategic Issues

1. To ensure 100% compliance with University of Nairobi Service Charter in teaching, learning and examination management processes in any given semester of an academic year.
2. To increase Lecturer publications by 0.1% annually for the next five years
3. To sign two Memorandums of Understanding with accredited and national and internationally reputable Universities for academic collaboration, research, student and staff exchanges
4. To conduct a minimum of two academic seminars annually for postgraduate Students (Master of Education, PhD and Doctor of Education) for the next five years
5. To institute efficiency in office operations by reduction of paper communication by 0.5% annually for the next five years
6. To ensure documentation and recording of operational procedures and activities for further reference and as a good governance procedures
7. Ensure response to customer requests and complaints within the required timelines according to the University, College, School and Departmental service charters

## Major Achievements in the Year 2020

1. A number of virtual staff meetings (18<sup>th</sup> June, 2020) and consultative meetings (with a Development partner (MDF, Netherlands) have been held to discuss matters that touch on the operations of the Department. The virtual meeting with the Development partner was particularly important because it led to discussion and winning of a training grant for the Department for training of refugee students online. The matter is in progress and the curriculum has been discussed in the Department and is awaiting discussion at the School Academic Board.
2. The Department conducted online teaching, examinations, holding staff meetings and conducted defenses.
3. There is an on-going review of Curriculum with new programmes (Master and PhD in Monitoring and Evaluation) and PhD in Corporate Governance in Education.
4. The Department had 23 numbers of graduands in September, 2020 and December, 2020.
5. There were 15 participants in African Universities Networks for Education in Emergencies.

6. Many Lecturers are External Examiners of Kenyatta University, Masinde Muliro University of Science and Technology, South Eastern Kenya University (SEKU) and Egerton University etc.
7. The department has a winning of Management for Development Foundation (MDF) grant, which will train Diploma Teachers in Education in Emergencies. Part of the achievement of the MDF training has to do with training Lecturers on refugee ready educators. MDF has provided 10 laptops for the Department of Educational Administration through the EiE Section

### Corporate and Community Outreach Activities

1. Lecturers, besides their teaching duties serve as members and Chairs of Boards of Management in Secondary Schools, Teachers Training Colleges, and Directors of Non-Profit Organizations.
2. There are Five thematic areas for consultants in the department which academic staff members champions namely:
  - a) Education Administration
  - b) Curriculum Studies
  - c) Education in Emergency
  - d) Educational Planning
  - e) Economics of Education
3. Other academic members Chair County Education Boards as well as being members of professional organizations such as the Education Society of Kenya, Society for Education Research, Kenya (SEREK).
4. Some academic staff members sit in steering committees at the National and global level for their areas of specialization (Dr Loise Gichuhi, Education in Emergencies and Dr Andrew Riechi, IIEP).

### Staff Portfolio

Position	No. of Staff
Professor	2
Associate Professor	4
Senior Lecturer	10
Lecturer	6
Ass. Lecturer	1
Senior Ass. Secretary	1
Records Clerk	1
<b>Total</b>	<b>25</b>

### Projections

Revenue and Expenditure Projections 2019/2020	
<b>Sources of Revenue</b>	
Tuition fees from Self Sponsored Students	24,153,263.00
Research Grants	41,716,598.49
<b>Total Revenue</b>	<b>65,869,861.49</b>
<b>Expenditure</b>	
Office and Teaching	45,528.70
Equipment & Furniture	36,317.61
<b>Total Expenditure</b>	<b>81,846.31</b>

### Any Other Pertinent Information/Issue in the Year 2020

The Department held a month long virtual research seminars for staff which commenced with an official opening by the Principal College of Education and External Studies Professor: Isaac Jumba (2<sup>nd</sup> September, 2020) and were officially closed by the Dean, School of Education; Professor Samson Gunga. The Theme of the seminar series was “*Rethinking Educational Research in the 21<sup>st</sup> Century; Implications and Perspectives on Sustainable Development*”. The purpose of this seminar was:

1. To provide a platform for the facilitators and participants to share their wealth of knowledge and research experience.
2. To interrogate the place and role of educational research in promoting sustainable development during COVID-19 pandemic and beyond.

# College of Health Sciences

## School of Dental Sciences

### Introduction

The School of Dental Sciences started from a humble beginning in 1974 as a department (The Department of Dental Surgery) in the then Faculty of Medicine. The first group of eighteen (18) students was admitted in 1974 to pursue the course leading to the degree of Bachelor of Dental Surgery (BDS) of the University of Nairobi. To facilitate its inception and growth, the department acquired and renovated the then building structures for the former Princess Elizabeth Maternity in 1977 with financial and material support from the Government of the Federal Republic of Germany.

The aim was to have a university teaching dental hospital. Initially, the department had only nine (9) dental units and would thereafter grow to have fifty two (52) dental units distributed in various clinics. In 2009, three units were added for purposes of Income Generation at the plaza wing bringing the total to fifty five (55). The Dental plaza provides dental services to clients who prefer not to be treated in the teaching clinics

The School is mandated to train oral health professionals not only to satisfy the national needs but also the needs of East and Central African Countries at both undergraduate and specialist levels.

In 1996, ward, major and minor theatres were opened and became operational to complete the Dental Hospital complex where even complex oral maxillofacial and reconstructive surgical procedures are performed. Continued growth of the School depends on its ability to attract and efficiently utilize limited resources.

### Constituent Departments

The School has four (4) Departments namely:

1. Oral/Maxillofacial Surgery/Oral Medicine/Pathology and Oral/Maxillofacial Radiology
2. Conservative and Prosthetic Dentistry
3. Paediatric Dentistry and Orthodontics
4. Periodontology/Community & Preventive Dentistry

### Programmers Offered

1. Degree in Bachelor of Dental Surgery (BDS)
2. Master of Dental Surgery (MDS) in Paediatric Dentistry
3. Master of Dental Surgery (MDS) in Periodontology
4. Master of Dental Surgery (MDS) in Prosthodontics
5. Master of Dental Surgery (MDS) in Oral & Maxillofacial Surgery
6. Doctor of Philosophy (PhD) in Dentistry

## Enrolled Students

Year	Under-graduates	MDS (Masters)	PhD
Year 1	72	21	2
Year 2	44	17	
Year 3	41	5	
Year 3	44	4	
Year 4	31		

## International Students

Programme	No. of Students
Bachelor of Dental Sciences	7
Paediatrics Dentistry	1
Periodontology	1
Oral and Maxillofacial Surgery	4
Prosthodontics	

## No. of Graduands in 2020

Bachelors - 25

Masters - 5

## Staff Portfolio

Rank	No. of Staff
Professor	2
Associate Professors	6
Senior Lecturers	13
Senior Assistant Registrar	1
Lecturers	16
Chief Technologist (Lect. Equiv)	3
Tutorial Fellows	10
Senior Technologist/Technicians (DEF)	4
Technologist (ABC)	8
Accountants Assistant	1
Secretary	3
Nursing Officers	27
Dental Hygienist	1
ICT	2
Health Record and Information Technologist	1
Driver	1
Pharmaceutical Technologist	1
Radiographers	2
Caretaker	1
Messengers/Cleaners	7

## International Links and Collaborations

- i) Collaboration with Maharishi Markandeshwar University
- ii) University of Washington, Seattle
- iii) Columbia University, New York

## Research Activities Year 2020

### (a) Postgraduate Research

1. Oral Health Status and Treatment needs among 12-17 year old Juvenile Prisoners in Nairobi City and Kiambu Counties.
2. Oral Health Status and treatment needs among Paediatric Oncology patients at Kenyatta National Hospital.
3. A Randomized Clinical Trial comparing the hall technique and ART in restoring proximal carious lesions on primary molars of 5-6 year old children in Kenya.
4. Dr Anthony K. Bii – MDS Prosthodontics research  
*Thesis title:* Analysis of Root and Canal Morphology of Second Permanent Molars in a Selected Kenyan Population using CBCT  
Supervisors – Dr Tom M. Dienya, Dr Susan W. Maina, Dr James M. Nyaga
5. Dr Silas M. Toka – MDS Prosthodontics research  
*Thesis title:* Effect of Phosphate-bonded investment materials and their Manipulation on the Marginal fit of Cast-metal crown copings
6. Dr Marion N. Mosomi – MDS Prosthodontics research  
*Thesis title:* Evaluation of anterior maxillary teeth proportions to determine the existence of three aesthetic guidelines in Kenyan population  
Supervisors – Dr Susan W. Maina, Dr Olivia A. Osiro, Dr Ben I. Omondi
7. Dr Catherine N. Maundu – MDS Prosthodontics research  
*Thesis title:* Evaluation of Marginal fit of fixed restorations fabricated from conventional versus digital impressions  
Supervisors – Dr Olivia A. Osiro, Dr James M. Nyaga, Dr Catherine N. Gichangi
8. Dr Lydia M. Obiero – MDS Prosthodontics research  
*Thesis title:* Oral health related quality of life among complete denture wearers at the University of Nairobi Dental Hospital  
Supervisors – Dr Bernina K. Kisumbi, Dr Ben I. Omondi, Dr Cyril N. Ogada
9. Dr Diana K. Masara – MDS Prosthodontics research  
*Thesis title:* A CBCT analysis of root and canal morphology of mandibular premolars of a select Kenyan population  
Supervisors – Dr Tom M. Dienya, Dr Laura G. Edalia, Dr Benjamin N. Simiyu
10. Dr Alexander M. Mwangi – MDS Prosthodontics research  
*Thesis title:* A comparison of manual and digital assessment using stereolithography datasets of tooth preparations for single crowns in Nairobi, Kenya  
Supervisors – Dr James M. Nyaga, Dr Fred O. Otieno, Dr Olivia A. Osiro
11. Dr Elisha N. Ndakama – MDS Prosthodontics research  
*Thesis title:* Root and canal morphology of permanent molars among a Tanzanian population of African inherent using CBCT  
Supervisors – Dr Tom M. Dienya, Dr James M. Nyaga, Dr Benjamin N. Simiyu
12. Dr Umaru Kizito  
*Thesis title:* Clinical performance of direct posterior resin-composite restorations placed over a 5-year period in selected institutions in Nairobi, Kenya  
Supervisors – Dr Bernina K. Kisumbi, Dr Hazel O. Simila, Dr Fred O. Otieno  
Supervisors – Dr Hazel O. Simila, Dr James M. Nyaga

13. Dr Benson K. Njuguna – MDS Prosthodontics research  
*Thesis title:* Quality of life of patients with acquired maxillary defects following prosthetic rehabilitation over a five-year period at two referral institutions in Nairobi  
Supervisors – Dr Ben I. Omondi, Dr Catherine N. Gichangi, Dr Mwirigi M. Kaaria.

#### (b) Staff Research

1. Dr Bernina K. Kisumbi– PhD research  
*Thesis title:* Development, Implementation and Evaluation of a Dental Amalgam Phase Down Training Programme among Dentists in Kenya Supervisors – Dr Susan W. Maina, Dr Olivia A. Osiro
2. Dr Cyril N. Ogada– PhD research, registered at School of Public Health, University of the Witwatersrand
3. Dr Hazel O. Simila – DAAD PhD Scholarship, Germany An ecological study of the association between environmental indicators and early childhood caries.
4. Dr. Zawadi W. Ismael - Socio-demographic, clinical and histopathologic characteristics of Oral Squamous Cell Carcinoma diagnosed at two sites in Central Kenya (completed)
5. Secondary deformities of Cleft Lips and Palate presenting at three centers in Nairobi (ongoing)
6. Causes of Delayed Presentation of patients with Oral cancer at the Kenyatta National Hospital (Ongoing)
7. Outcome of treatment of patients with large mandibular continuity defects (ongoing)
8. An ecological study of the association between environmental indicators and early childhood caries.
9. Behavior change due to Covid-19 among dental Academics.
10. Governance, material well-being and early childhood caries in 3-5-year-old children.
11. The burden of oral disease in Kenya HIV-infected children.
12. Molar incisor hypomineralization, prevalence, patterns and distribution in Sudanese children.
13. Association between early childhood caries, malnutrition and anaemia: a global perspective.

#### Consultancies

Dental Services offered at the University Dental Plaza

#### Major Achievements, Challenges and Strategic Projections

##### Achievements

School of Dental Sciences major achievements in the year 2020

Date	Item	Department	Remarks
March, 2020	Online teaching and learning commences	All Departments, School of dental Sciences	In response to Covid-19 pandemic, most of the operations of the school including teaching and learning for all programs were transitioned smoothly to online platforms. The School conducted all Lectures theory examination through online platforms.
April, 2020	COVID-19 response committee constituted	School	The committee was tasked with responsibilities of advising the School on infection control prevention strategies in both clinics and external environments. The committee spearheaded the training for both students and staff on COVID-19 prevention protocols.

Date	Item	Department	Remarks
May, 2020	Staff Changing Rooms renovated	School/Columbia University partnership	In preparation for face to face clinical teaching resumption, two staff changing rooms on the ground floor of the School of Dental Sciences building were identified and renovated. This is to accommodate female and male staff members, and comply with Ministry of Health guidelines.
May, 2020	Installation of Backup generator	School/University of Nairobi Main	A new generator was installed. This is a big achievement because operations at the school get disrupted whenever Kenya power light goes
July, 2020	Installation of hand wash stations, automatic hand sanitizer dispensers	School/Columbia University partnership	Hand wash station outside the main Dental school building was done to ensure compliance with Ministry of Health guidelines
July, 2020	Set up of Triage centre	School/UNES	The school set up the tent for triage centre, and assigned the management to involve nurses and Registrars from all Departments in the school to reduce waiting time for patients, and appropriate referral to avoid crowding in waiting rooms within the School.
August, 2020	Purchase of Laundry Machine through staff initiative	School Staff community	An 8kg washing machine was bought through staff contributions to ensure that re-usable gowns could be laundered on site.
December, 2020	Graduation of 30 students who completed their studies in 2020	School worked with corporate to prepare students	Twenty undergraduate and five postgraduate students graduated and have proceeded to serve the country in various capacities; the newly qualified dentists are now doing internship at various government facilities while the postgraduates are serving before specialist recognition in various hospitals.
December, 2020	Hippocratic Oathing of newly qualified Dentists	School/ Kenya Medical Practitioners and dentists Council	Hippocratic oath was administered to the twenty five qualified Dentists before posting for internship
December, 2020	Completed renovation of students changing rooms	School/Columbia University partnership	Due to Covid 19 challenges, students are required to wear PPE while at the clinic. The changing rooms crucial for safety of students.



Date	Item	Department	Remarks
Continuous 2020-2021	Supply of Personal Protective Equipment (PPE) for clinical use	Principal, UNES, Equity Bank, Staff and other donations	Donations of PPEs have been received from many individuals and corporate institutions including the Principal, CHS, Equity Bank Foundation, The Deputy principal, CHS, staff at the School and UNES through the Dental Plaza.

## Challenges

Among the challenges facing the Department are:-

1. Frequent and persistent shortage of consumables that adversely affect teaching as well as optimum patient care, due to convoluted and bureaucratic procurement processes and delayed payment of suppliers.
2. Worn out teaching and training infrastructure: The current clinical teaching facilities pose a real challenge since 50% of the dental units in use are obsolete and maintaining them is a daunting task. In addition, spares are not available and repairing the units is uneconomical. The dental chairs available for use are not adequate for the number of students admitted.
3. No operating ambulance and or utility vehicle that adversely affect other services such as food delivery and transport of linen to and from laundry.
4. The laboratory facilities are inadequate. Diagnostic and teaching services occupy the same space in the Oral Pathology laboratory, which compromises the safety of students who are taught in the same area where potentially toxic reagents are processed. The department acquired 6 new microscopes in the year 2019 but most of the challenges remain.
5. Lack of research funding and low compensation.
6. Lack of staff promotion.
7. Disruption of Hospital services when there is unscheduled closure of teaching services.

## Strategic Projections

Registration and Recognition of Dental Hospital

1. Registration and Recognition of the University Dental Hospital as a National Teaching Referral Hospital by Kenya Medical Practitioners and Dentists Council.
2. Improved Dental Care at the Teaching Outpatient Clinics  
In the year 2020, 1579 dental outpatient cases were attended in the clinics. The teaching hospital remained closed during the COVID 19 break (March and July 2020).
3. In year 2021, the focus is to review operational logistics in the clinics with view to increasing the number of patients receiving outpatient services.

## Publications

1. Edalia L, Simiyu B, Kaaria M, Kisumbi B, Dienya T. Prevalence of Endodontic disease in a Dental Hospital in Kenya. *KDA Journal*. 2019.
2. B.K. Kisumbi. Phase Down and implementation of the minnamata convention on mercury in Kenya. *KDA Journal*. 2019.
3. Benjamin Simiyu, Kaaria Mwirigi, Laura Edalia, Bernina Kisumbi, Tom Dienya. Post treatment

- endodontic disease among patients seeking treatment at a referral dental hospital in Kenya. *Endodontics*. February 2020.
4. Osiro O.A., Kisumbi BK, Kariuki D.K., Gathece LW. Implications of the Minamata Convention on Mercury on Oral Health in Kenya. *Kenya Policy Briefs*. January 2020.
  5. Ben I Omondi, Fredah Chepkwony, Rael M Ariemba, Josephat O. Miyogo, Gladys N. Opinya. Prosthodontic Rehabilitation of a Child with Ectodermal Dysplasia: A Preliminary Report. *International Journal of Prosthodontics*. 2019.
  6. Sumbi IM, Edalia LG, Mua B. Dental jewellery and oral piercings: Knowledge, attitude and practice among dentists in Nairobi. *Journal of Kenya Dental Association*. 2019.
  7. Kaaria M.M, Nyaga J.M. Rehabilitation with Maxillary Obturator Prosthesis Following Bilateral Total Maxillectomy for Adenoidcystic Carcinoma: A Case Report. *Journal of Kenya Dental Association*. 2019.
  8. Kisumbi B.K. Editorial - Dental Jewellery, intraoral and perioral tissue piercing. *Journal of the Kenya Dental association*. 2020.
  9. Benjamin Simiyu Nyongesa, Katrina G. De Luna, Grace Ellen S. Dey, Iluminada L. Viloría. Management of a severely curved canal with Proglider and Wave One gold compounded with a separated instrument. *Oral Rehabilitation and Dentistry*. 2019.
  10. Benjamin S. Nyongesa BDS, Katrina G. De Luna DMD MScD, Phides P. Alcorta. Management of a Combined Endodontic-Periodontal Lesion. *Endodontic Society of the Philippines Journal*. 2019.
  11. Omanga A.O, Mua .BN, Edalia L.G, Gakonyo J. Adherence to professionalism and ethical practice on social media among dentists in Nairobi. *East African Medical Journal*. 2019; 96:2700-2708.
  12. Mosoti M.C, Gathece L.W, Dienya T, Wagaiyu EG. Utilization of computerized systems among dentists in Nairobi County. *Journal of the KDA*. 2019. 10(3):752-759.

### **Corporate and Community Outreach Activities**

In the year 2020, despite prevailing COVID-19 challenges, the School mounted 4 successful Dental Community outreach service activities. In each of these, members of the public benefited from free dental treatment given by the school.

## School of Medicine



*School of Medicine, College of Health Sciences (Kenyatta National Hospital Campus)*

### Introduction

**Dean of the School:** Prof. Fredrick C.F. Otieno, MBCHB, MMed, (Nairobi), FRCP

The School of Medicine was started on 3rd July 1967 and was officially inaugurated on 7th March 1968. The Clinical Departments of the School are situated at Kenyatta National Hospital while the Pre-Clinical Departments are housed at the Chiromo Campus.

The School offers courses of study leading to the award of degrees of Bachelor of Medicine, Bachelor of Surgery, Bachelor of Science in Biochemistry, Bachelor of Science in Medical Laboratory Science and Technology, Bachelor of Science in Medical Physiology, Bachelor of Science in Human Anatomy, Master of Medicine, Master of Science, Doctor of Philosophy, Doctor of Medicine and Postgraduate Diplomas.

### Constituent Departments in the School

- |   |                                   |
|---|-----------------------------------|
| i) Anaesthesia                                | viii) Medical Physiology          |
| ii) Biochemistry                              | ix) Obstetrics and Gynaecology    |
| iii) Clinical Medicine and Therapeutics       | x) Ophthalmology                  |
| iv) Diagnostic Imaging and Radiation Medicine | xi) Orthopaedic Surgery           |
| v) Human Anatomy                              | xii) Paediatrics and Child Health |
| vi) Human Pathology                           | xiii) Psychiatry                  |
| vii) Medical Microbiology                     | xiv) Surgery                      |

**School of Medicine also has Seven Thematic Units namely:**

- |                             |                                       |
|-----------------------------|---------------------------------------|
| i) Anatomic Pathology,      | v) Haematology and Blood Transfusion, |
| ii) Clinical Chemistry,     | vi) Immunology and                    |
| iii) Clinical Pharmacology, | vii) Neurosurgery                     |
| iv) E.N.T.                  |                                       |

## Programmes and Services Offered

1. Master of Medicine in Anaesthesiology
2. Master of Medicine in Diagnostic Radiology
3. Master of Medicine in ENT Surgery
4. Master of Medicine in General Surgery
5. Master of Medicine in Human Pathology
6. Master of Medicine in Internal Medicine
7. Master of Medicine in Neurosurgery
8. Master of Medicine in Obstetrics and Gynaecology
9. Master of Medicine in Ophthalmology
10. Master of Medicine in Orthopaedic Surgery
11. Master of Medicine in Otorhinolaryngology, Head & Neck Surgery
12. Master of Medicine in Paediatric Surgery
13. Master of Medicine in Paediatrics and Child Health
14. Master of Medicine in Plastic, Reconstructive and Aesthetic Surgery
15. Master of Medicine in Psychiatry
16. Master of Medicine in Thoracic and Cardiovascular Surgery
17. Master of Medicine in Urology
18. Master of Medicine in Radiation Medicine
19. Master of Science in Biochemistry
20. Master of Science in Clinical Chemistry
21. Master of Science in Clinical Cytology
22. Master of Science in Clinical Psychology
23. Master of Science in Human Anatomy
24. Master of Science in Medical Microbiology
25. Master of Science in Medical Physiology
26. Fellowship in Clinical Infectious Diseases
27. Fellowship in Gynaecological Oncology
28. Fellowship in Medical oncology
29. Fellowship in Paediatric Anaesthesia
30. Postgraduate Diploma in Clinical Audiology & Public Health Otology
31. Postgraduate Diploma in Psychiatric Social Work
32. Postgraduate Diploma in Psychoactive Substance Abuse
33. Postgraduate Diploma in Psychotrauma Management
34. Bachelor of Medicine and Bachelor of Surgery
35. Bachelor of Science in Biochemistry
36. Bachelor of Science in Human Anatomy (Intercalated)
37. Bachelor of Science in Medical Laboratory Science & Technology
38. Bachelor of Science in Medical Physiology (Intercalated )
39. Higher Diploma in Medical Diagnostic Ultra Sound
40. Diploma in Audiology and Public Health Otology

## Major Milestones and Strategic Issues

### Major Achievements

1. Growth of Dental, Pharmacy from inception as departments at the Faculty of Medicine in 1974 to fully fledged Schools with diverse Undergraduate and Post-graduate Academic Programs in 1995.
2. Growth of department of Nursing sciences from inception as a department of Advanced Nursing in 1968 to fully fledged School with diverse Academic programs in 2006.
3. Development of long-term vibrant research collaborations and linkages; Universities of Manitoba Canada; Washington (USA), Maryland (USA), Ghent (Belgium); Oxford (UK) among others.
4. Initiation of KAVI; Currently hosting 1 of 3 HIV vaccine research laboratories in Africa & are the first site for phase 1 and 2 vaccine trials in Africa.
5. Elevation of department of community health to fully fledged school of public health in September 2010
6. Establishment of University of Nairobi Institute of Tropical and Infectious Diseases (UNITID), with an ultra-modern level III laboratory in 2003, the 3rd of its kind in Africa currently undertaking research and training geared towards management and control of infectious diseases, as well as emerging and reemerging pathogens especially the viral haemorrhagic fevers.

## Students Enrolled

### Undergraduate Enrolment (2019/2020 Academic Year)

Program	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Total
Bachelor of Medicine and Bachelor of Surgery	399	307	511	551	272	263	2,303
BSc. Biochemistry	58	34	47	41	-	-	180
BSc. MLST	41	36	28	38	-	-	143
<b>Total</b>							<b>2,626</b>

### Postgraduate Enrolment (2019/2020 Academic Year)

Master of Medicine	Master of Science	Fellowship	Diploma	PhD	TOTAL
557	114	21	5	22	<b>719</b>

### International Students (2019/2020 Academic Year) = 107

Degree Program	Total
Fellowship in Paediatric Emergency and Critical Care	1
Bachelor of science in Biochemistry	3
Higher Diploma in Diagnostic Medical Ultrasound	1
Bachelor of Medicine and Bachelor of Surgery	52
Postgraduate Diploma in Clinical Psychiatry	5
Master of Science in Clinical Psychology	5
Master of Science in Medical Microbiology	1
Master of Science in Clinical Cytology	2
Master of Science in Clinical Cytology	2

Master of Medicine in Obstetrics and Gynaecology	2
Master of Medicine in Ophthalmology	5
Master of Medicine in Anaesthesia	2
Master of Medicine in Orthopaedic surgery	4
Master of Medicine in Paediatrics and Child Health	5
Master of Medicine in Psychiatry	1
Master of Medicine in Urology	2
Master of Medicine in Neuro-surgery	4
Master of Medicine in general surgery	2
Master of Medicine in ENT	2
Master of Medicine in Human Pathology	1
Master of Medicine in Diagnostic Radiology	5
<b>107</b>	

## Challenges

1. Prolonged industrial actions by health workers
2. Increased competition from other institutions doing similar things.
3. Duplication and diversity of regulators for academic programmes
4. Declining exchequer funding and freeze of hiring
5. Sporadic incidences of drug and substance abuse.
6. Inflation
7. Illnesses and Work-related stress
8. Staff attrition from age-related retirement, illnesses and deaths
9. Technological obsolescence
10. Demands of rapidly changing knowledge
11. Competition and crowding in the teaching hospital
12. Imparting clinical skills using e-learning

## Corporate Social Responsibility and Outreach Activities

Activity	Focus Area	Date
Strategic Planning workshop on Haemophilia and Sickle cell Disease in Kenya “Current situation and identification of needs Healthcare Framework in Voi	Healthcare framework	Short course 28 <sup>th</sup> January 2020
Plastic Surgery & KSPRAS	Upper and lower limb reconstruction - KNH	Workshop 27 <sup>th</sup> and 28 <sup>th</sup> February 2020
Animated Video for Helping Youth	Pandemic work with people in the community and institutions is online and the link above is one of the creativities by one of the members of the Department of Psychiatry	March - June 2020

Community Service	The elderly, patients with other health issues and Covid-19	23rd April 2020
Community Service	Emphasis on the Covid-19 precaution measures	29th April 2020
Community Service	Heart health (any dangers) in relation to Immobility, sleep, mental health and alcohol	14th May 2020
Community Service	Link; Stress and High BP	25th May 2020
Online Teaching and Learning Commences	In response to COVID-19 pandemic, most of the operations of the University including teaching and learning for all programs were transitioned to online platforms. The School adopted these.	6 <sup>th</sup> April, 2020
School Inspected By EAC	The University of Nairobi (UoN) School of Medicine meets the requirements for training of medical students as provided in the East Africa Community (EAC) regional guidelines for inspection and recognition of medical schools and teaching hospitals in EAC partner states.	5 <sup>th</sup> March, 2020
Dr. Fredrick Ouma Oluga	School of Medicine alumnus lands job at Nairobi metropolitan services as Chief Officer Health	March 2020

## Staff Portfolio

Designation	Qualifications
<b>Department of Clinical Medicine and Therapeutics</b>	
Professor	4
Associate Professor	7
Senior Lecturer	5
Lecturer	7
<b>Department of Orthopaedic Surgery</b>	
Professor	2
Senior Lecturer	3
Lecturer	5
<b>Department of Obstetrics and Gynaecology</b>	
Associate Professor ( <i>1 on Leave of Absence</i> )	8
Senior Lecturer	6
Lecturer	5
<b>Department of Ophthalmology</b>	
Associate Professor	2
Senior Lecturer	5
Lecturer	5

Designation	Qualifications
<b>Department of Biochemistry</b>	
Professor	1
Assoc. Professor	4
Senior Lecturer	4
Lecturer	9
Tutorial Fellow	3
Graduate Assistant	2
<b>Department of Human Pathology</b>	
Professor	1
Associate Professor	3
Senior Lecturer	4
Lecturer	13
<b>Department of Human Anatomy</b>	
Professor	1
Senior Lecturer	3
Lecturer	1

Designation	Qualifications
<b>Department of Medical Microbiology</b>	
Professor	2
Associate Professor	1
Senior Lecturer	3
Lecturer	4
Assistant Lecturer	1
Tutorial Fellow	4
<b>Department of Psychiatry</b>	
Professor	3
Associate Professor	2
Senior Lecturer	5
Lecturer	4
Tutorial Fellow	3
<b>Department of Paediatrics and Child Health</b>	
Professor	5
Associate Professor	4
Senior Lecturer	5
Lecturer	12
Tutorial Fellow	3

Designation	Qualifications
<b>Department of Medical Physiology</b>	
Senior Lecturer	5
Lecturer	7
<b>Department of Surgery</b>	
Professor	4
Associate Professor	3
Senior Lecturer	10
Lecturer	15
Tutorial Fellow	5
<b>Department of Anaesthesia</b>	
Senior Lecturer	2
Lecturer	4
<b>Department of Diagnostic Imaging and Radiation Medicine</b>	
Senior Lecturer	9
Lecturer	6
Clinical Oncologist (Seconded from MoH)	2
Tutorial Fellow	1

## Visiting Professors

Name	Duration	Organization
Professor Pier Paolo Piccaluga	20th – 25th April 2020 Department of Clinical Medicine and Therapeutics-Oncology	University of Bologna
Professor Lorenzo Leoncini	24th – 29th February 2020	University of Siena
Professor Bernardo Leon Rapoport	14th – 21st June 2020	South Africa
Professor Nazik Hamaad	12th – 27th July 2020	Queen's University
Professor Julie-Ann Francis	5th – 25th July 2020	Queen's University
Professor Paul Ruff	14th – 20th June 2020	University of Witwatersrand Faculty of Health Sciences

## Projections

The School is anticipating to admit more PhD candidates in 2021.

## Any Other Pertinent Information/Issues in the Year

The University of Nairobi (UoN) School of Medicine received Personal Protective Equipment (PPE) support worth 12 million Kenya shillings from the United States Agency for International Development (USAID). Prof. Fredrick Otieno, Dean School of Medicine, spearheaded the initiative.



# Department of Psychiatry

## Introduction

The Department of psychiatry is one of the departments at the School of Medicine, College of Health Sciences. It was established in 1971 soon after the start of the medical college in 1967. The department is situated at the medical school, Kenyatta National Hospital (KNH). For teaching purposes, the department also uses Mathari Hospital, which is situated about 10 kilometres away from KNH. At KNH together with staff from KNH we run outpatient clinics for both adults and children. We also work closely with Mathari hospital to train our students, both postgraduates and undergraduates.

## 2. Programmes Offered

- a) MBChB Level I Behavioural Sciences
- b) MBChB Level IV Psychiatry lectures
- c) MBChB Level V Psychiatry lectures
- d) Master of Medicine degree in Psychiatry (MMed Psych)
- e) Master of Science in Clinical Psychology (MSc Clinical Psychology)
- f) Post graduate Diploma in Psychotrauma
- g) Post graduate Diploma in Substance abuse
- h) Post graduate Diploma in Psychiatry Social Work
- i) Postgraduate Diploma in Clinical Psychiatry
- j) Doctor of Philosophy and Doctor of Medicine
- k) Doctor of Philosophy and Doctor of Clinical Psychology

We also service other departments in teaching postgraduate students, like the Department of Medicine and Paediatrics.

## Enrolled Students

1. MMed Psychiatry – 22
2. MSc. Clinical Psychology – 21
3. PGD Psychiatric Social Work – 2

## Strategic Issues

1. Graduated only 10 students which was much lower than the previous year. The low production of student in the 2020 FY was due to COVID – 19 pandemic.
2. Due to the COVID – 19 pandemic conferences attended were limited therefore full dissemination was not realized
3. There was also limitation in collaboration and linkages with peer institutions and industry locally and internationally.
4. Challenges in automation of course evaluation tool.

## Major Achievements in the Year 2020

1. Online teaching, learning and examinations.
2. Online interviews, Admissions and Registration of students.
3. Graduated 10 postgraduate students during the 64<sup>th</sup> graduation ceremony.
4. Ten webinar presentations on COVID-19 pandemic related issues.

- Revised the draft MOU between UoN and Mathari Hospital which is now almost at the stage of signing by the two parties.
- Despite the COVID – 19 pandemics, the department was committed to conducting outreach programmes with people in the community particularly vulnerable individuals - women and the youth.

### Cooperate and Community Outreach Activities

Lecturer	Programme	Sch/ Dept/ Unit	Extension/Outreach	Date
Prof. David Ndetei	Kenya Guidance and Counselling Psychological Association	Psychiatry	Guidance and Counselling	Winter 2020
Dr. Manasi Kumar	Animated video for helping youth	Psychiatry	During this COVID-19 pandemic work with people in the community and institutions is online and the link above is one of the creativities by one of the members of the Department of Psychiatry	March – June 2020
Dr. Lincoln Khasakhala	Community Volunteer	Psychiatry	Chief Operating Officer for SAPER	April 2020

### Staff Portfolio

Position	No. of Staff
Professor	3
Associate Professor	2
Senior Lecturer	5
Lecturer	4
Tutorial Fellow	3
Secretary	2
<b>Total</b>	<b>19</b>

### Projections

- Focus on realizing succession planning in the Department of Psychiatry
- Prioritize and align more programmes, projects and activities to the realization of the “Big Four” agenda through mounting research projects focusing on COVID – 19 in collaboration with partners and institutions
- Alignment of the various programmes with CUE guidelines and standards – already in process

### Any Other Pertinent Information/Issues in the Year 2020

- The Department of Psychiatry lost two members of the academic staff in 2019 and to date they have not been replaced even after I requested for their replacement.
- The Department is grossly understaffed, and almost half of the academic members are above 60 years of age and will be retiring almost at the same time. The Department urgently needs to replace the two members who died and to recruit tutorial fellows for succession planning.

## International Students Component

We have sixteen (16) international students

## Number Graduands per Programme

MMed Psychiatry - 8

MSc. Clinical Psychology - 2

## Research Activities Undertaken

Title	Duration	Donor	Activities	Pi
SMART AFRICA	2015 – 2019 Extension to May 2021 2023	New York University	<p>Main activity of this project is working with parents and their children to improve on respectful communication. This is to be done through:</p> <p>Adaptation of the American manual 4Rs and 2 Ss- almost done. This has been through engagement of stakeholders</p> <p>Selecting of the three schools to be involved in the pilot study and to randomly assign them to either peer parents training, community health workers training or giving educational materials – almost done.</p> <p>Training of Trainers – was done in December 2018</p> <p>Selecting peer parents and CHW- was done in January 2019</p> <p>Training the parent and CHW trainers- was done in January 2019</p> <p>Started the intervention in Feb 2019</p>	Dr. Anne W. Mbwayo
ASPIRE	2018 - 2023	US Fogarty International Center & NIMH	<p>The major activity of the project is focusing on mental health needs of pregnant adolescents. Since the award of the grant in September 2018, PI has submitted her protocol to IRB and carried out two stakeholder meetings. She has made plans for research training activities for the remainder of the year.</p>	Dr. Manasi Kumar
DAPPER	2018 - 2023	NIMH	<p>The purpose of the project is to conduct effectiveness implementation hybrid randomized clinical trial of psychotherapy versus pharmacotherapy delivered by non-specialist in Kisumu County.</p> <p>Ongoing project</p>	Prof. Muthoni Mathai

Title	Duration	Donor	Activities	Pi
WHO EQUIP	2019 - 2020	WHO	Training and intervention	Prof. Muthoni Mathai

## International Links and Collaboration

MOU signed between University of Nairobi and Walden University for collaborated fieldwork supervision of Walden University student attached to the Department of Psychiatry.

## Publications

Author	Title	The Journal	Date
E. Lloyd, N. Sartorius, H.U. Ahmed, A. Alvarez, S. Bahendeka, A.E. Bobrov), L. Burti, S.K. Chaturvedi, W. Gaebel, G. de Girolamo, T.M. Gondek, M. Guinzbourg, M.G. Heinze, A. Khan, A. Kiejna, A. Kokoszka, T. Kamala, N.M. Lalic, D. Lecic-Tosevski, E.	Factors associated with the onset of major depressive disorder in adults with type 2 diabetes living in 12 different countries: results from the INTERPRET-DD prospective study Volume	Epidemiology and Psychiatric Sciences. DOI: <a href="https://doi.org/10.1017/S2045796020000438">https://doi.org/10.1017/S2045796020000438</a>	2020
Rose Ngondi <sup>1</sup> , Lincoln Khasakhala <sup>2</sup> and Philemon Yugi <sup>3</sup>	Relationship between Emotional Intelligence and Academic Performance among Secondary School Students in Athi-River Sub County, Kenya	Journal of Education in Developing Economies 1(1), 2020 (online) Website: <a href="http://www.writersbureau.net">www.writersbureau.net</a>	2020
Rose Ngondi <sup>1</sup> , Lincoln Khasakhala <sup>2</sup> , Philemon Yugi <sup>3</sup>	Emotional Intelligence in Relation to Gender among Secondary School Students in Athi-River Sub-County, Kenya	African Research Journal of Education and Social Sciences 7 (1), 2020 ISSN (online): 2312-0134 Website: <a href="http://www.arjess.org">www.arjess.org</a>	2020
Larissa Jennings Mayo-Wilson <sup>1,2*</sup> , Muthoni Mathai <sup>3,4</sup> , Grace Yi <sup>2</sup> , Margaret O. Mak'anyengo <sup>3,4</sup> , Melissa Davoust <sup>2</sup> , Massah L. Massaquoi <sup>2</sup> , Stefan Baral <sup>5</sup> , Fred M. Ssewamala <sup>6</sup> , Nancy E. Glass <sup>7</sup> , NAHEDO Study Group <sup>4</sup>	Lessons learned from using respondent drivensampling (RDS) to assess sexual risk behaviors among Kenyan young adults living in urban slum settlements: A process evaluation	<a href="https://doi.org/10.1371/journal.pone.0231248">https://doi.org/10.1371/journal.pone.0231248</a>	May 2020

Author	Title	The Journal	Date
Catherine Mawia Musyoka, Anne Mbwayo, Dennis M. Donovan & Muthoni Mathai	mHealth-based peer mentoring for prevention of alcohol and substance abuse among first year university students: protocol	Journal of Substance Use, DOI: 10.1080/14659891.2020.176 6131	May 2020
Victoria Mutiso; Christine Musyimi; Tahilia Rebello; Isaiah Gitonga; Albert Tele; Kathleen Pike; David M. Ndetei	Predictors of Intimate Partner Violence in patients attending for general health services at rural health facilities in Makueni, County, Kenya.	Mental Health & Prevention. Available online 8 September 2020, <a href="https://doi.org/10.1016/j.mhp.2020.20019">https://doi.org/10.1016/j. mhp.2020.20019</a>	2020
David M. Ndetei, Victoria Mutiso, Christine Musyimi, Frida Kameti	Psychosocial Response to COVID- 19 in Africa With Special Reference To Kenya.	World Social Psychiatry. 2020, Vol 2 Issue 2. <a href="http://www.worldsocpsychiatry.org">http://www. worldsocpsychiatry.org</a> IP: 10.232.74.22	2020
GBD 2019 Universal Health Coverage Collaborators	GBD 2019 Universal Health Coverage Collaborators. Measuring universal health coverage based on an index of effective coverage of health services in 204 countries and territories, 1990–2019: a systematic analysis for the Global Burden of Disease Study 2019.	The Lancet. 27 August 2020. DOI:10.1016/S0140- 6736(20)30750-9.	27 August 2020
Local Burden of Disease WaSH Collaborators	Mapping geographical inequalities in access to drinking water and sanitation facilities in low- income and middle-income countries, 2000–17.	The Lancet Global Health. August 2020. DOI:10.1016/ S2214-109X(20)30278-3.	August 2020
Local Burden of Disease Diarrhoea Collaborators	Mapping geographic inequalities in oral rehydration therapy coverage in low- and middle-income countries, 2000–17.	The Lancet Global Health. August 2020. DOI:10.1016/ S2214-109X(20)30230-8. August 2020.	August 2020

Author	Title	The Journal	Date
Yator, O., Khasakhala, L., John- Stewart, Kumar, M. (2020).	Acceptability and Feasibility of Group Interpersonal Therapy (IPT-G) for Depressed HIV+ Postpartum Adolescents Delivered by Community Health Workers: A Protocol Paper	Clinical Medicine Insights Psychiatry 11:117955732095122 DOI:10.1177/1179557320951222	August 2020
Yator O, Kagoya M, Khasakhala L, John-Stewart G, Kumar M.	Task-sharing and piloting WHO group interpersonal psychotherapy (IPT-G) for adolescent mothers living with HIV in Nairobi primary health care centers: a process paper. AIDS Care.	-6.11:1 doi: 10.1080/09540121.2020.1801981. Epub ahead of print. PMID: 32781831.	2020 Aug
Flückiger C, Rubel J, Del Re AC, Horvath AO, Wampold BE, Crits-Christoph P, Atzil-Slonim D, Compare A, Falkenström F, Ekeblad A, Errázuriz P, Fisher H, Hoffart A, Huppert JD, Kivity Y, Kumar M, Lutz W, Muran JC, Strunk DR, Tasca GA, Víslá A, Voderholzer U, Webb CA, Xu H, Zilcha-Mano S, Barber JP.	The reciprocal relationship between alliance and early treatment symptoms: A two-stage individual participant data meta-analysis.	J Consult Clin Psychol. 88(9):829-843. doi: 10.1037/ccp0000594. PMID: 32757587.	2020 Sep
Sinha, M. Kumar, M, Kumar, Dietz, L. Atwoli, L.	Towards mental health friendly cities during and after COVID-19, Cities & Health August 2020. Cities & Health	DOI: 10.1080/23748834.2020.1790251	August 2020
Catherine Mawia Musyoka, Anne Mbwayo, Dennis Donavan, Muthoni Mathai	Alcohol Substance Use Among First-year Students at the University of Nairobi, Kenya: Prevalence Patterns	Journal Pone	August 2020

Author	Title	The Journal	Date
Yvonne Olando, Mary Kuria, Muthoni Mathai, Mark D, Huffman	Barriers and Facilitators to cessation among Tobacco Users with concomitant mental illness attending group behavioural tobacco cessation: A qualitative Study		August 2020

### Book Chapters Produced (4)

Author*	Title	Journal	Period**
Musyimi, C., Lai, Y., Mutiso, V., Ndetei, D .	Use of Mobile Phones for Frontline Health-Care Workers to Manage Depression “The Role of Technology”	Innovations in Global Mental Health 10.1007/978-3-319-70134-9_12- 1 © Springer Nature Switzerland AG	2020
Ndetei DM, Mutiso V.	Mental Health During Covid-19 and Lessons For The Future Beyond Covid-19	Global Mental Health & Psychiatry Review, Vol. 1 No. 2, Spring/ Summer	2020

### Conferences

Name of Lecturer	Topics/Function	Venue/Place	Date
David Ndetei and WPA Board members	WPA Board Virtual meeting – WPA 2020-2023 Action Plan	Webinar (Organized by WPA Geneva)	29 <sup>th</sup> September 2020; at 14:00 - 17:30
David Ndetei (WPA Zone 14) and WPA Zone 15 and 16 Representatives	WPA webinar Evidence Based Psychopharmacology	Webinar (Organized by WPA Geneva)	19 <sup>th</sup> September 2020; at 12.00 – 14.00
David Ndetei	Suicide and How To Handle Stress	Family TV Media	28 <sup>th</sup> September 2020 at 11.00 – 12:00
David Ndetei	Discussion on Anxiety/Panic attacks	Family TV Media	21 <sup>st</sup> September 2020 at 13:00-14:00
David Ndetei and others (Uganda Team)	World Suicide Prevention day: Working together to prevent Suicide	Zoom meeting – (The Sanctuary, a youth organization in Uganda)	10 <sup>th</sup> September 2020; at 10:00
David Ndetei and WPA Board members	WPA Task Force Minimizing coercion in mental health	Zoom meeting – (Organized by WPA Geneva)	9 <sup>th</sup> September 2020 at 14:00 – 16:00
David Ndetei	Talk on Depression.	Family TV Media	18 <sup>th</sup> August 2020 13:00 – 14.30

Name of Lecturer	Topics/Function	Venue/Place	Date
David Ndetei	Talk on COVID-19 – How it affected many Kenyans have been rendered jobless, their source of livelihoods disrupted and there have been an increase in Domestic violence	Family TV Media	11 <sup>th</sup> August 2020 13:00 – 14.30
David Ndetei and WPA Board members	WPA Joint Executive Committee and Board Meeting	Zoom meeting – (Organized by WPA Geneva)	31 <sup>st</sup> July 2020; at 14:00 – 15.30
Manasi Kumar	Participated in CitiesRise MHFC consultation		June 2020
Manasi Kumar	Presented to KNH COVID meeting on psychological first aid		10 June and 18 July, 2020
Manasi Kumar	Presented to Cities Rise on ‘addressing trauma, depression and stress during COVID’		August 12, 2020
Muthoni Mathai	Vicarious Trauma Among Health Care Workers: Kenya Medical Association In Association With Kenya Psychiatric Association Online CME	Online CME	21 <sup>st</sup> April 2020
Muthoni Mathai	Covid-19 And The Psychological Effect On Frontline Health Responders: KNH Covid-19 Webinar	KNH COVID-19 Webinar	29 <sup>th</sup> April 2020
Muthoni Mathai	Behavioral Change: Protective Practices In The Public Sector KNH COVID-19 Webinar	KNH COVID-19 Webinar	8 <sup>th</sup> July 2020
Muthoni Mathai	The Acceptability and Effectiveness of a Tele-Medicine Based Approach to Offering Psychosocial Support to Frontline Healthcare Workers During The Covid-19 Pandemic in Kenya	CHS-UON COVID Response Research Webnar	14 <sup>th</sup> July 2020
Muthoni Mathai	It Is About Behaviour Change! The COVID 19 Research Alliance Webinar: One Size Fits All?	Research Alliance Webinar	29 <sup>th</sup> July 2020



Name of Lecturer	Topics/Function	Venue/Place	Date
Muthoni Mathai	COVID 19 and STIGMA AMONG HEALTH CARE WORKERS KNH- Webinar	KNH-Webinar	27 <sup>th</sup> August 2020
Muthoni Mathai	Suicide Prevention Tubonge Suicide Prevention Webinar:	Tubonge Suicide Prevention Webinar	24 <sup>th</sup> September 2020
Muthoni Mathai	COVID 19: Living in The New Norm: Witness Protection Agency- Workshop on COVID 19 Prevention Strategies		25 <sup>th</sup> November 2020

## Supervisions

Supervisors	Students
<b>Prof. Anne Obondo</b>	Dr Linet Kendi Mbae, Dr Gloria N Sane, James Letoo, Ahmed Hussein, Keziah Wanjau, Julia Wambui, Tubmann Wilma, Kiarie Esther Wambui, Pauline Maachio, Peter Odieki, Sylvia Okwero, Karemera M. Wellars' (PhD)
<b>Prof. Wangari Kuria</b>	Dr Ruth Jepchumba Korir, George Githambo, Dr. Caroline Makau, Dr. Alfred Gitonga, Dr. Samuel Oroko, Peter Owuor, Yvonne Olando (PhD), Roseline Okoth (PhD), Tina Wakukha Masai (PhD), Yvonne A. Olando (PhD), Esther W. Kariuki (PhD), Karemera M. Wellars' (PhD)
<b>Prof. Caleb Othieno</b>	Dr Muia Mwende Janet, Grace Okoba, Grace Obalim, Mary Mugambi
<b>Prof. Muthoni Mathai</b>	Dr Mumbi Chege, Dr. Linda N Nyamute, Dr Eric Njuguna, Segametsi Bongani Mthunzi, William Otieno, Shillah Mwavua, Mercy Chege, Sandra Kimuge, Dr. Mustafa Ali, Dr. Stanley Muange, Dr. Edward Odhiambo, Dr. Samuel Oroko, Ahmed Hussein, Sylvia Mita, Esther Gathoni, Simon Kintu, Nancy Ngathi, Kianduma Yvonne Njeri, Hussein Abdi Abdullahi, Neema Araka, Peter Odieki, Margaret Magiri Kihato, Tina Wakukha Masai (PhD), Catherine Mawia Musyoka (PhD), Yvonne A. Olando (PhD)
<b>Dr. F.R. Owiti</b>	Dr Joseph Makenga Masila, Dr Mumbi Chege, Dr. Elizabeth Ngarachu, Dr. Mugira George Itabari, Dr. Muburi Catherine Muthoni, Seline Okumu, Jackline Araya, Kuria Susan Wangeci, Kamenju Malaika, Emmanuel Alenga Amadi, Toguem Guy Michael
<b>Dr. Manasi Kumar</b>	Dr Milka A. Olando, Joan Mutahi, Kamenju Malaika, Awuoche Victoria, Husna Salim, Jacinta Muriuki, Obadia K. Yator (PhD)
<b>Dr. Lincoln Khasakhala</b>	Dr Joseph Makenga Masila, Dr Linet Kendi Mbae, Shillah Mwavua, Damaris Osoro, Elizabeth Epirong, Maureen Mbuge, Dr. Amos Kariuki, Mogotsi Thapelo, Josephe Kathono, Simon Ngipuo, Elizabeth Ipurong, Iham Mohamed, Jennifer Njoki, Awuoche Victoria, John Kimura, Peter Dede, Obadia K. Yator (PhD)

Supervisors	Students
<b>Dr. Judy Kamau</b>	Joan Mutahi, Joan Ahero, Sandra Kamuge, Nelly Kamwaro, Milka Olando, Ruth Kioko, Faith Muhindi, Stephen Mucheu, Sheilla Shavulimo, Grace Obalim, Kariuki Sylvia Wambui, Pelaelo Ketshephile, Kiarie Esther Wambui, Stephen Karimi, Sylvia Okwero
<b>Dr. John Mburu</b>	Dr Gloria N Sane, Dr. Elizabeth Ngarachu, Dr Muia Mwende Janet, Dr. Ruth Masha, Dr. Mustafa Ali, Dr. Penina Kibuti, Mogotsi Thapelo, Mustafa Ali, Seline Okumu, Kuria Susan Wangeci, Peter Owuor, Emmanuel Alenga Amadi, Shivute NdapewaNamibia, Peter Dede, Margaret Magiri Kihato
<b>Dr. Anne Mwayo</b>	Dr Linda N Nyamute , Dr Ruth Jephumba Korir, Dr Eric Njuguna, Mercy Chege, Martha Kagoya, George Githambo, Selfine Otieno, Dr. Caroline Makau, Dr. Mugira George Itabari, Dr. Muburi Catherine Muthoni, Keziah Wanjau, Simon Ngipuo, Sheilla Shavulimo, Mbandi Florence, George Gituanja, Jacinta Muriuki, Maria, Gertrude Faith Nanzala, Catherine Musyoka (PhD)
<b>Dr. Teresia Mutavi</b>	Ruth Kioko, Maureen Mbuge, Elizabeth Epirong, Dr. Mustafa Ali, Dr. Ruth Masha, Dr. Erica Adagala, Dr. Stanley Nzau Muange, Dr. Alfred Gitonga, Mustafa Ali, Esther Gathoni, Elizabeth Ipurong, Angeline Mutindi, Iham Mohamed, John Kimura, Zawadi Kimura, Gertrude Faith Nanzala
<b>Dr. Pius Kigamwa</b>	Segametsi Bongani Mthunzi, William Otieno, Martha Kagoya, Dr. Erica Adagala, Dr. Amos Kariuki, Dr. Edward Odhiambo, Monica Otiende, Kevin Lime, Sheila Mwangi, Sylvia Mita, Julia Wambui, Tom Mboya Nyangwara, Angeline Mutindi, Husna Salim, Obaso Nectarias, Pauline Maachio
<b>Dr. Rachel Kang'ethe</b>	Selfine Otieno, Dr. Penina Kibuti, Kevin Lime, Joan Ahero, Caroline Vundi, Beryl Akoth Odhiambo, Maria
<b>Prof. David Ndetei</b>	Kianduma Yvonne Njeri, Tubmann Wilma, Toguem Guy Michael, George Gituanja, Caroline Ossi, Esther W. Kariuki (PhD)
<b>Dr. Roselyne Okoth</b>	Kariuki Sylvia Wambui, Tom Mboya Nyangwara, Stephen Karimi, Beryl Akoth Odhiambo, Caroline Ossi
<b>Dr. Catherine Gitau</b>	Pelaelo Ketshephile, Mbandi Florence, Caroline Vundi, Obaso Nectarias, Zawadi Kimura
<b>Dr. Pauline Nganga</b>	Jennifer Njoki, Hussein Abdi Abdullahi, Shivute Ndapewa Namibia, Neema Araka

### Consultancies by Staff Members/Unit

1. Dr. Pius Kigamwa, Offers psychiatric services at University Health Services
2. Dr. Fredrick Owiti, Offers psychiatric services at University Health Services
3. All members of staff offer services both at Kenyatta National Hospital and University Health Services

## Staff Portfolio

Designation	No. of Staff
Professor	3
Associate Professor	2
Senior Lecturer	5
Lecturer	4
Tutorial Fellow	3
Secretary	2
<b>Total</b>	<b>19</b>

## Number of Graduates

MMed Psychiatry	-	8
MSc. Clinical Psychology	-	2

## Grants

Name of Lecturer	Topics/Function	Period/Date
Dr. Manasi Kumar	K43 Emerging Global Leader award (Award number TW010716-01A1)	2018 – 2023
Prof. Muthoni Mathai	DAPPER, NIH, USD 796096	2018 – 2023
Prof. Muthoni Mathai	WHO – EQUIP	2019 – 2020
Dr. Anne Mbwayo	SMART AFRICA	2018 – 2023

## School of Nursing Sciences



*School of Nursing Sciences, College of Health Sciences (Kenyatta National Hospital Campus)*

### Introduction

The School of Nursing Sciences is one of the Schools of the College of Health Sciences. It was initially a department in the faculty of Medicine for close to 38 years before being fully established as a School in January 2006 to offer training of nurses both at undergraduate and postgraduate levels. The administrative unit of the School of Nursing Sciences is the Directors' office. The School has four Thematic Areas namely: Medical/Surgical Nursing, Obstetrics/Midwifery and Gynaecological Nursing, Community Health Nursing and Nursing Education and Administration.

Thematic Units/Areas	Specialized Courses with Respective Subspecialties
<b>Medical – Surgical Nursing</b>	<ul style="list-style-type: none"> <li>- Theories, Philosophies and Scientific basis of Fundamentals, Advanced and Forensic Nursing Practice</li> <li>- Paediatrics Nursing - cardiothoracic, Critical care, Accident, Trauma and Emergency care, etc.</li> <li>- Mental Health and Psychiatric Nursing - Child and adolescent, forensic, etc.</li> <li>- Critical Care Nursing-neurological ICU,Cardiothoracic ICU,etc</li> <li>- Renal Nursing - Nephrology, Urological, transplant nursing, PD nursing etc.</li> <li>- Oncological Nursing- Radiological interventional &amp; imaging, palliative, etc.</li> <li>- Medical - Surgical nursing : Geriatric Nursing, Perioperative, Burns,etc.</li> </ul>
<b>Obstetric Nursing and Midwifery</b>	<ul style="list-style-type: none"> <li>- Reproductive health – SGBV, etc</li> <li>- Gynecological Nursing</li> <li>- Obstetric Nursing and Midwifery – Antenatal care nursing, Post-natal nursing, Intra partum nursing, Neonatal nursing etc</li> </ul>

<b>Community Health nursing</b>	<ul style="list-style-type: none"> <li>- Family health nursing</li> <li>- Maternal Child Health and Family Planning</li> <li>- Community Health nursing – School health, Occupational health,etc</li> </ul>
<b>Administration and Education in Nursing</b>	<ul style="list-style-type: none"> <li>- Nursing Education – Philosophy of education, Curriculum development and instruction, instructional communication and technology,etc</li> <li>- Nursing management and Administration-Human resource, Strategic management, etc.</li> <li>- Nursing Informatics – communication, simulation etc.</li> <li>- Research-Research ethics,Qualitative,Quantitative,etc</li> </ul>

### Vision

A centre of excellence in nursing education, research, community service and consultancy with scholars and professionals

### Mission

To train nurse professionals, carry out research in current and emerging health issues, provide community service and consultancy.

### Objectives

- i) To design and implement relevant and innovative teaching and learning progress
- ii) To be a leading institutions in Scholarly research and creative productivity in Africa
- iii) Improve student welfare services through development and implementation of appropriate minimum standards
- iv) To build a sustainable resource base
- v) To enhance competitiveness and image of the School
- vi) To instutionalize governance mechanism and leadership culture that facilitate the realization of the Schools vision and mission

## Programmes Offered

The School offers the following programmes:

- i) Diploma in Renal Nursing (in collaboration with East African Kidney) - 1 Year
- ii) Bachelor of Science in Nursing (Bsc.N) - 4 Years
- iii) Bachelor of Science in Nursing (RN to BSc) - 3 Years
- iv) Master of Science in Nursing (MScN) - 2 years (Various Specialties)
- v) PhD in Nursing

## Strategic Issues

1. Institutionalize an appropriate culture in the School of Nursing Sciences by Increasing commitment, loyalty and responsibility among staff by ensuring compliance with the teaching schedule and keeping to timelines
2. Market the School locally and internationally by establishing new linkages/partnerships with industry and by documenting key achievements on foyer/websites
3. Establish and operationalize mechanisms that empower staff. This will be achieved by developing and implementing staff recognition & appreciation programme for exceptional talent and excellent performance in the School
4. Review existing graduate programmes to attract more students by increasing the number of partnerships established with international universities/institutions and also increase the number of graduate students in diverse fields/specialties in Nursing profession

5. Improve the quality and quantity of STEM programme by ensuring that all academic units have adequate and equipped skills/simulation laboratory for STEM programs such as Nursing
6. To produce quality graduates in diverse fields of nursing by improving quality and delivery of teaching and learning programmes

### Major Achievements in the Year 2020

Item	Remarks
Online Thesis defense	One candidate successfully defended PhD thesis
Online Dissertation Defense	All MScN Students defended their dissertations online
Criteria for academic staff recruitment and promotion	Given by Senate and successfully used to advertise for the following posts for the School. - Post of Professor - Post of Ass. Prof
Mainstreaming of online teaching and learning	- Successfully done both undergraduate and post graduate - Staff and students were trained on teaching and class enrollment
Online solutions for university business	- Lots of queries handled using help desk created for the School - More email accounts created for solving various issues at the School e.g verification of documents, examination queries
Online examinations	- Conducted successfully. University provided Telkom lines with bundles to staff and students - Challenges with power issues and proper gadgets not available for some students
Online UNSA elections, 2020	School participated by providing nominal rolls online Students from the School voted online
Online Candle lighting ceremony and The NIGHTINGALE Pledge/OATHING	The school organized and conducted the Candle lighting ceremony and the Nightingale pledge/Oath that is mandatory for all new graduands of nursing
Online FY 2019/2020 Performance Contract Evaluation	The School was successfully evaluated on the FY 2019/2020 Performance Contract and obtained the overall grade of "GOOD"
Virtual 63 <sup>rd</sup> & 64 <sup>th</sup> Graduations	1 PhD graduand in 63 <sup>rd</sup> graduation, 101 undergraduate graduands, 20 MScN in the 64 <sup>th</sup> graduation
Virtual UoN@50 Celebrations	Members of Staff awarded Excellence Outstanding Achiever Awards:- The Late Dr.Joyce Musandu
Online Registrations of 1 <sup>st</sup> year students	Joining instructions of students uploaded and students verified online

Item	Remarks
Online Orientation and welcoming of new students	The School conducted online orientation and welcoming of new students
Student progression	Students academic progress done
Pardon of expelled students	3 Nursing Students pardoned and reported
Webinars On COVID-19 related issues	15 Organized by the School, Staff attended over 20 other webinars
Online PhD Seminar series with international guest faculty	The school Organized qualitative research seminar series with an International guest Clinical Associate professor from Boston University. The seminar was conducted over 5 weeks of 3 hours each
Anchoring the pivotal role of the course leader, in examination process	Course leaders were successfully set in the System by UoN ICT team and were able to administer examinations online
Contribution to Health Policy at National and international levels	<ul style="list-style-type: none"> <li>- Ending medicalization of Female genital mutilation in Kenya with a faculty member, Health professionals Associations and regulatory bodies</li> <li>- A faculty was appointed by UNESCO Chair in Bioethics, Melbourne, Australia and participated in drafting Global Nursing &amp; Health Care Ethics Related to the COVID-19 Pandemic: Policy guidelines Based on UNESCO's Universal Declaration of Bioethics and Human Rights</li> </ul>
Publications in peer reviewed journals	Seven publications on various issues of health
Recognition and international appointment of Alumni	An Alumnus of the school was appointed to Steering Group at International Council of Nurses in Geneva and represent student nurses at the World Health Assembly - Rashid Salim
International appointment	A member of faculty appointed as the Secretary to the Global Expert Panel on Nursing Bioethics of the UNESCO Chair in Bioethics
COVID-19 supplies Donations by Alumnus	An alumnus of the school Donated hand washing stations and sanitizers to the school as part of COVID-19 Transmission prevention strategy

### Cooperate and Community Outreach Activities

The year 2020 had challenges due to the outbreak of covid-19 which led to most activities to a halt. Staff and students were not able to organize medical camps but some students managed to offer community outreach services in various parts of the country as follows;

- i) Voluntary work by students;
- ii) Loisaba Community Conservation (Ewaso Dispensary)
- iii) Garissa County Referral Hospital (Accident and Emergency Unit)

### Staff Portfolio

There are twenty-one (21) Academic members of staff and six (6) support staff as follows:

<b>Designation</b>	<b>No. of Staff</b>
Professor	1
Associate Professor	1
Senior Lecturers	9
Lecturers	10
Administrator	1
Library Assistant	1
Secretary	1
Records Clerk	1
Messenger/Cleaner	2
<b>Total</b>	<b>27</b>

## **Future Projections**

### **Establishment of Fully Fledged Departments in the School**

- i) To increase international links and collaborations
- ii) Establishment of a school of Nursing and Rehabilitative Sciences to advance training in BSc physiotherapy, occupational therapy, orthopedic technology among others.
- iii) Provision of clinical services to include; Maternal Child Health/Family Planning and Nutrition, Counseling services, Substance Abuse rehabilitation, Community mental Health services, outreach and home based nursing care



## School of Pharmacy

### Department of Pharmaceutics and Pharmacy Practice



#### Our Vision

To be a centre of excellence and a leading Department in Pharmaceutical education, research and Pharmacy Practice.

#### Our Mission

To provide innovative leadership in Pharmaceutical Research, undergraduate, postgraduate training and professional development to members of our local and international community.

#### Introduction

The Department of Pharmaceutics and Pharmacy Practice is one of the three departments of the School of Pharmacy and is located within the college of Health Sciences. The Department was conceived as a section within the former Department of Pharmacy in the Faculty of Medicine in 1974. It became a fully-fledged Department when the School of Pharmacy attained Faculty status in July 1995.

The Department encompasses staff with interests and expertise in the field of Pharmaceutics, Drug Delivery, Nanotechnology, Clinical Pharmacy, Pharmacogenetics, Pharmacokinetics, Community Pharmacy, Pharmacometrics, Pharmacy Law and Ethics, Pharmaceutical Microbiology, Pharmacy Management and Social and Administrative Pharmacy.

Our members of staff are deeply committed to achieving excellence in our teaching and research missions. Our undergraduate program showcases several disciplines within the profession of pharmacy and provides our students with knowledge and expertise that prepare them adequately for professional practice. The program lays emphasis on interdisciplinary teamwork, to impart lifelong education of a well rounded up pharmacist. It is our earnest endeavour to equip our students with professional ethics and appreciation of the value of service to their profession and society.

The Pharmacy Practice and Drug Information Unit is a model community Pharmacy housed within the Department and caters as an active learning site for our students

The Pharmaceutical Product Development and Research Unit (PPD RU) formulates and produces high quality Pharmaceutical products.

## Programmes Offered

### Masters Programs

- i) Master of Pharmacy in Clinical Pharmacy
- ii) Master of Pharmacy in Industrial Pharmacy

### PhD Programs

- i) Doctor of Philosophy in Pharmaceutics
- ii) Doctor of Philosophy in Clinical Pharmacy
- iii) Doctor of Philosophy in Industrial Pharmacy

## Students Enrolment

- |                                |      |                                |     |
|--------------------------------|------|--------------------------------|-----|
| i) MPharm Clinical Pharmacy    | - 15 | iii) PhD in Clinical Pharmacy  | - 1 |
| ii) MPharm Industrial Pharmacy | - 3  | iv) PhD in Industrial Pharmacy | - 2 |

## International Student Component

We had two international students in our Masters' program

## Number of Graduates per Programme in the Year 2020

In the year 2020, the Department graduated a total of 14 postgraduate students as follows:

- |                               |      |
|-------------------------------|------|
| PhD in Clinical Pharmacy      | - 1  |
| MPharm in Clinical Pharmacy   | - 12 |
| MPharm in Industrial Pharmacy | - 1  |

## Research Activities

The current research that is being carried out is on formulation development of various pharmaceutical medicines using novel technologies for use in conditions like Cancer, parasitic diseases, malaria etc. The Department is also actively conducting clinical pharmacy research with KNH pharmaceutical services department on pharmaceutical therapy review in treatment for cancer, diabetes, extemporaneous preparation of wide range of dosage forms used for paediatrics and geriatrics.

1. Characterization of the drug use patterns and potential drug-drug interactions among the mentally ill adult patients at Mathari National Teaching and Referral hospital
2. Assessment of the management of uncontrolled hypertension among adult hypertensive outpatients attending Kenyatta National Hospital
3. Effectiveness and safety of artemether lumefantrine in patients with malaria in Bungoma County Referral Hospital
4. Drug related problems among patients with rheumatic diseases and connective tissue disorders in Kenyatta National Hospital
5. Patterns and determinants of dyslipidemias among patients with Type 2 diabetes mellitus at Kenyatta National Hospital
6. Evaluation of adverse drug events among patients infected with Human immunodeficiency virus and those co-infected with tuberculosis at Kenyatta National Hospital

7. Health-related quality of life and drug therapy problems in patients with sickle cell disease on hydroxyurea at Kenyatta National Hospital
8. Determinants and management of cardiac toxicities induced by anthracycline-based regimens in adult patients with cancer at Kenyatta National Hospital
9. Determinants of drug therapy problems among renal transplant recipients at Kenyatta National Hospital
10. Factors associated with treatment outcomes of prostate cancer patients on androgen deprivation therapy at Kenyatta National Hospital
11. Drug therapy problems among patients with thyroid disorders and related comorbidities at Kenyatta National hospital
12. Determinants of HPV vaccine hesitancy among parents attending Kenyatta National Hospital Outpatient clinics
13. Drug therapy problems among patients on proton pump inhibitors in the medical wards of Kenyatta National Hospital
14. Rational use of antibiotics among patients admitted to critical care units at Kenyatta National Hospital and its impact on clinical outcomes
15. Prevalence of Dolutegravir Associated Hyperglycemia and its Covariates among Persons Living with HIV on Treatment at Kenyatta National Hospital
16. Prevalence, trends and risk factors of infections in post renal transplant recipients in Kenyatta National Hospital
17. Drug related problems among patients admitted in the critical care unit of Kenyatta National Hospital
18. Etiology, Management and Outcome of Liver Disease among Patients with Hepatic Injury at Kenyatta National Hospital
19. Characterization of the steady state concentrations and Pharmacogenetics of Ritonavir boosted Atazanavir in Kenyan HIV positive patients.
20. Formulation and in vitro characterization of Nystatin --Lidocaine oral Gel
21. Physicochemical characterization of Loperamide Solid dispersion prepared through fusion method via microwave irradiation
22. Formulation and evaluation of Prednisolone sustained release tablets using myhrr gum as a release retardant.
23. Formulation and development of Albendazole Nanoparticulate system for use in Cancer
24. Solubility enhancement studies of Rufinamide, Praziquantel, Carbamezipine and Itraconazole.

### International Links and Collaborations

1. MAPRONANO African Center of Excellence with Makerere University-Mainly on developing Nano medicines using Material science and nanotechnology and to support PhD and Masters Students doing research in Nanotechnology (2017-2021).
2. EAC Center of Excellence on Supply Chain Management of Health Commodities, Vaccines and Technologies for support training and short course facilitation in Kenya (2016-2021).

### Publications

Author	Title	Journal	Month & Year
Sylvia A Opanga	Response to the Novel Corona Virus (COVID-19) Pandemic Across Africa: Successes, Challenges and implications for the future.	Frontiers	September 2020

Author	Title	Journal	Month & Year
Eunice Muthuki, David G. Nyamu, Peter Karimi, Kefa Bosire	Predictors of non-adherence to antihypertensive therapy in a rural health facility in Kenya.	African Journal of Pharmacology and Therapeutics	Volume 9 No. 2 (2020)
Norah Maore, Peter N. Karimi, Eric Guantai	Prevalence and Antimicrobial Susceptibility of Bacteria Implicated in Neonatal Sepsis at Pumwani Maternity Hospital	East and Central African Journal of Pharmaceutical Sciences	Volume 23 NO 2 (2020)
Charles Kabiru, Peter N, Karimi David Nyamu, Irene Waweru	Drug therapy problems and health related quality of life among patients with colorectal cancer in a Kenyan Tertiary Health Facility	Journal of Oncology Pharmacy Practice	November 2020
George Mugendi, Nasser Nyamweya, Faith Okalebo, Jashvant Unadkat	People living with HIV on Atazanavir-based second line regimens are not highly adherent to therapy: a report from a Tertiary Referral hospital in Kenya	African Journal of pharmacology and Therapeutics	Volume 9 No. 2 (2020)
Makite Simon, David Gitonga Nyamu, Rosaline Njeri Kinuthia	Clinical significance of potential Drug –Drug interactions and their targets for minimization among hypertensive diabetic outpatients at a Kenyan referral hospital	International Journal of Pharmacy and Pharmaceutical Sciences	Volume 12 issue 10, 2020
Atal A S Gil, Shital M. Maru, T M Reddy	A novel Copper – based 3D porous nanocomposite for electrochemical detection and inactivation of pathogenic bacteria	Sensors and Actuators B: Science Direct volume 321	15 October 2020
Akul Amartey, Kwame Buabeng, Senam Tengcy, Shital M. Maru	The availability, use and disposal of malaria and HIV rapid diagnostic test kits in health facilities in the greater Accra region of Ghana	International Journal of Community Medicine and Public Health	2020 Dec 7 (12) 4869 - 4878
Eunice Muthuki, David Gitonga Nyamu, Peter Ndirangu Karimi, Kefa Bosire	Adequacy of blood pressure control and management patterns among hypertensive adult patients attending a sub-county hospital in Central Kenya: a cross-sectional study	Pan African Medical Journal	December 2020
Peter Ndirangu Karimi, Shital Mahindra Maru	Factors that affect vaccines availability in Public Health Facilities in Nairobi city county: a cross-sectional study	Pan African-med -journal	December 2020
Sylvia Opanga et al	Ongoing strategies to improve the management of upper respiratory tract infections and reduce inappropriate antibiotic use particularly among lower and middle income counties	Current Medical Research and Opinion Journal	Volume 36 issue 2- 301 – 327 (2020)

Author	Title	Journal	Month & Year
David G. Nyamu, Anastasia Guantai, George Osanjo, Brian Godman, Eleni Aklillu	Profiles of patients on Warfarin anticoagulation therapy in a leading tertiary Hospital in Kenya: Findings and Implications for Kenya	Expert Review of Cardiovascular Therapy	Volume 18, 2020 issue 3
Mugendi AG, Kubo MN, Nyamu DG, Mwaniki LM, Wahome SK	Prevalence and Correlates of Depression among HIV infected patients on highly active antiretroviral therapy in a Kenyan Referral Hospital.	Journal of Kenya Association of Physicians	March 2020 volume 3 No. 1
Sakina I. Mamdani, David Nyamu, Tom Menge	Outcomes of a Pharmacist –led Anticoagulation Education Program among patients on long- term Warfarin Therapy in a Kenyan Referral Hospital	World Journal of Pharmaceutical and Medical Research	2020, 6 (7) 177-183
Gacheri KC, Karimi PN,	Medicated related problems in patients with Head and Neck cancers at KNH	Pharmaceutical Journal of Kenya	Volume 24 Nov 2020
Musembi YW, Karimi PN	Prevalence and Antimicrobial Susceptibility of Urogenital pathogens in a Kenyan Tertiary Health Facility	Pharmaceutical Journal of Kenya	Volume 24 Nov 2020
Gathoni KC, Karimi PN, Weru IW	Drug therapy problems and Clinical Outcomes among patients and Human Epidermal growth Factor Receptor 2 (HER 2) positive Breast cancer Trastucumab – based therapy in a Kenyan Tertiary Health Facility	Journal of Cancer Science and Clinical Oncology	Volume 6 issue 1 2020

## Consultancies Either Undertaken by Staff Members/Unit

### 1. Pharmacy and Poisons Board (PPB)

Resource Persons in training and Assessment, recognition of Pharmacy specialties

- |                      |                    |
|----------------------|--------------------|
| a) Dr. Peter Karimi  | c) Dr. David Nyamu |
| b) Dr. Lucy J. Tirop | d) Dr John Bururia |

### 2. EAC Regional Centre of Excellence for Vaccines, Immunization and health Supply Chain Management, Kigali, University of Rwanda

- |                   |                      |
|-------------------|----------------------|
| a) Dr P.N. Karimi | b) Dr Shital M. Maru |
|-------------------|----------------------|

### 3. GRV Africa Pharma Logistics/AUC for Health 2020 Task team for supply of COVID-19 Vaccine to Africa.

Dr Shital M. Maru

### 4. COVID -19 National team: Dr. Sylvia Opanga

### 5. KNH AMR stewardship program: Dr Sylvia Opanga

## Staff Portfolio

Designation	No. of Staff
Senior Lecturer	5
Lecturer	2
Principal Technologist	1
Chief Technologist	1
Senior technologist	2
Technologist	1
Junior Lab Technologist IV	1
Laboratory Attendant	1
Records Clerk IV	1
Secretary	1
Messenger	1
Cleaner	1
<b>Total</b>	<b>18</b>

## Corporate Social Responsibility

As responsible citizens of the University, the staff of the Department worked swiftly during the start of COVID 19 and responded by formulating and producing high quality, non-irritating, moisturizing and highly effective alcohol based hand sanitizing gels (UNISAN™ GEL) and surface disinfectant cleaner (UNISURF™) and distributed the products for internal institutional use within the University of Nairobi.

## Major Achievements, Challenges and Strategic Projections

### Major Achievements

The department managed to examine and graduate students in the 64th graduation ceremony and approximately 90% of the enrolled postgraduate students graduated despite the COVID 19 global pandemic and understaffing.

Whilst the School of Pharmacy ranked third in 2019/2020 Performance Contracting in the University of Nairobi, the department proudly emerged the best in the school and stood at 20th position out of 66 Departments, in spite of the very many challenges due to COVID 19 global pandemic.

### Major Challenges

The Department in the previous year has lost many academic staff members due to deaths, retirement and resignation for greener pastures without replacement. The University has frozen recruitment despite numerous requisitions. The department is now acutely short - staffed and currently working at less than 40% of its actual capacity. It is feared that the academic members may get 'burn out' and leave or the quality of education may be compromised.

The other challenge the Department has is that the finance allocations are greatly insufficient to run operations effectively throughout the year. The department has three Laboratories, namely Pharmaceutics Laboratory, Pharmaceutical Microbiology laboratory and Pharmacy practice and drug information unit.

These Laboratories are highly lacking equipment, and medicines due to lack of finances. Even with the little available finances, the lengthy procurement processes are prohibitive.

Students have returned for physical practicum sessions in the small laboratories with few staff. This challenge coupled with COVID 19 protocols forces the Department to accommodate fewer number of students practice areas. This implies thus there are many practicum sessions and extended periods of time as the laboratories and units are quite small and the staff number is inadequate.

### **Strategic Projections**

The Department projects to increase its research activities and publications by 10% in the coming year despite the many challenges occasioned by lack of finance, inadequate staffing and COVID 19 pandemic.

The Department is working hard to increase the production of hand sanitizing gels (UNISANTM GEL and surface disinfectant cleaner (UNISURFTM) and distribute them for internal institutional use within the University of Nairobi and beyond.

### **Other Relevant Information**

The department wishes to request for the current staff to be promptly promoted and approvals to recruit more staff so that quality teaching and research can be carried out without staff facing a work burn out.

Currently as per the department staff establishment the senior most academic positions are vacant and staff have not been promoted despite meeting the criteria of promotion thus there is an aura of demotivation. Recruitment of tutorial fellows and Lecturers has been overly delayed from 2019 till date.

## School of Public Health

The School of Public Health was formally established in September 2010 with the appointment of a Director following approval of University of Nairobi Senate in August 2010. Four Thematic Heads were appointed in October 2010 and the School was officially launched by the Vice-Chancellor on February 22, 2011. Director of the School is Prof. Joyce M. Olenja, BEd, (Nairobi), MPhil, PhD, (Cambridge). Previous Directors of the school were Dr. Dismas Ongore (2010-2016) and Professor Mutuku A. Mwanthi (2016-2020). The current Director is Professor Joyce M. Olenja (February 2020).

The School is made up of four Thematic Units, which are mandated to develop and offer courses as follows:

### 1. Epidemiology and Biostatistics

- |                                |                                     |
|--------------------------------|-------------------------------------|
| a) Epidemiology                | c) Population Sciences              |
| b) Biostatistics and Computing | d) Research Methods and Methodology |

### 2. Health Care System and Policy Development

- |  |                        |
|--|------------------------|
| a) Health Planning and Policy Development      | c) Primary Health Care |
| b) Health Services Administration & Evaluation | d) Health Economics    |

### 3. Disease Prevention, Control and Health Promotion

- |   |  |
|---|--|
| a) Communicable and Non-Communicable Disease Prevention and Control |  |
| b) Family Health  | d) Environmental Health                          |
| c) Nutrition  | e) Occupational and Industrial Health and Safety |

### 4. Community Health Sciences

- |                                     |
|-------------------------------------|
| a) Social Sciences & Health         |
| b) Health Promotion & Communication |

The School teaches both undergraduate Bachelor of Medicine and Bachelor of Surgery (MBChB), Master of Public Health (MPH), Master of Science in Health Systems Management (MSc HSM) and PhD in Public Health.

### Major Achievements in the Year 2020

Date	Item	Department	Remarks
March 4, 2020	Director SPH	Corporate, SPH	The Vice Chancellor, in a School board meeting held at the College, School of Medicine boardroom, appointed Prof. Joyce Olenja as the new Director of the School of Public Health.
April 6, 2020	Online teaching and learning commences	Corporate, SPH	In response to COVID-19 pandemic, most of the operations of the University including teaching and learning for all programs were transitioned to online platforms. The School adopted these.



Date	Item	Department	Remarks
April 17, 2020	Collaboration Agreement	Corporate, SPH	The University of Nairobi (acting through the School of Public Health) signed a Collaboration Agreement with the London School of Hygiene & Tropical Medicine (LSHTM) to undertake a research project entitled “Programme to Evaluate and Inform Disability Action (PENDA). In the agreement, 1 PhD in Public Health student is currently being sponsored by the LSHTM and co-supervised by staff from School of Public Health and LSHTM for Degree of UON
July 3, 2020	MPH Dissertation defense	SPH	One (1) student successfully defended her MPH Dissertation.
August 21, 2020	FY 2019/2020 Performance Contract Evaluation	SPH	The School (SPH) was successfully evaluated (online) on the FY 2019/2020 Performance Contract
August 25, 2020	Negotiated SPH PC 2020/2021	SPH	The School submitted to the UoN PC Secretariat the 2020/2021 negotiated performance contract/report.
August 26, 2020	Online registration & orientation of new students	Academic Affairs, SPH	Successful enrollment and orientation of first year students was conducted. 38 students were admitted to the MPH programme while 4 students admitted to PhD in Public Health.
October 7, 2020	MPH Dissertation defense	SPH	Four (4) students successfully defended their MPH Dissertations.
October 7, 2020	Proposal to Ethics Review Committee	SPH	One MPH student proposal was signed to the UoN/KNH Ethics Committee.
September 25, 2020	Virtual 63rd Graduation Ceremony held successfully at the Great Court	Corporate	2 Master of Public Health graduands were among those conferred degrees and awarded diplomas by the Chancellor, Dr. Vijoo Rattansi.
November 9 – December 4, 2020	MBChB V fieldwork/ health center practice (face-to-face learning)	SPH	85 MBChB Year V students on Community Health rotation undertook their fieldwork/community diagnosis and health center practice at six health centres, that is; Gikambura, Lusigetti, Ndeiya, Uthiru, Wangige and Kihara, in Kiambu County. The exercise was done under strict observance of the MOH guidelines on Covid-19, including issuing of N95 masks to the students as protectives.

Date	Item	Department	Remarks
November 9 - 13, 2020	MPH CATs	SPH	The 2020/2021 MPH class sat for their continuous assessment tests undertaken online.
November 12, 2020	MPH Dissertation defense	SPH	Three (3) students defended their MPH Dissertations online.
November 19, 2020	2019/2020 MBChB V CAT		100 MBChB year five students undertook their Community Health online Continuous Assessment Test (CAT) invigilated by the School faculty.
December 9 to 14, 2020	2019/2020 MBChB V end of year Examinations	SPH	300 MBChB year five students undertook their online Community Health end of year examination invigilated by the School faculty.
December 10, 2020	UoN Jubilee Celebrations		Two (2) SPH Alumni were feted during the UoN at 50 celebrations: Prof. Julia Ojiambo and Prof. Miriam Were.
December 11, 2020	Virtual 64th graduation ceremony held successfully at the Great Court	Academic Affairs	1 PhD in Public Health and 7 Master of Public Health graduands were among those conferred degrees and awarded diplomas by the Chancellor, Dr. Vijoo Rattansi. A honorary degree was awarded to Prof. Julia Ojiambo, an alumni of the School of Public Health
December 15 and 16 2020	Virtual Sensitization on Career Development and Soft Skills to Administrative and Secretarial Staff	Corporate, SPH	The School administrator and Secretary participated in the Virtual Sensitization on Career Development and Soft Skills to Administrative And Secretarial Staff

## Staff Portfolio

Designation	No. of Staff
Professor	3
Senior Lecturer	3
Lecturer	10
Senior Administrative Assistant	1

Details on specific admission requirements of the school, credit transfer and exemptions, course structure and duration, examination regulations, course outline and award of degree may be obtained from the School.

## East African Kidney Institute



### Introduction

The East Africa kidney Institute was launched on October, 2014 as a Center of Excellence after a Senate approval. The Institute was to address the burden of chronic kidney and urological diseases that are emerging as a major global health problem with heavy morbidity and mortality with its associated social and economic burden. They are the 12<sup>th</sup> cause of death and 17<sup>th</sup> course of disability. East and central Africa region is experiencing a great need for the scientific base knowledge and skills for the practice of urology and nephrology. The East Africa states through the Africa Development Bank agreed to set up the East Africa kidney institute

#### Vision

An internationally recognized centre committed to scholarly and professional excellence in Urology and Nephrology

#### Mission

To provide quality medical education and training through creation, preservation, integration, transmission and utilization of health knowledge

As a regional center of excellence, it was mandated to build capacity in research training, clinical and preventive services in urology and nephrology for both faculty and service providers. The University of Nairobi and Kenyatta National Hospital serve as lead institutions.

#### Mandate

- i) To train high calibre renal health-care professionals
- ii) To offer renal health-related services to the community
- iii) To conduct research in the specific thematic areas of Urology, Nephrology, Nursing and Nutrition
- iv) To offer consultancy services
- v) To participate in renal health policy formulation

## Programmes Offered

The Institute offers various courses to build capacity in renal healthcare these are:-

### Postgraduate Courses:-

- |  |   |
|--|---|
| i) Master of Medicine in Urology       | vi) Masters in Renal Nutrition                |
| ii) Master of Science in Renal Nursing | vii) Post graduate Diploma in Renal Nutrition |
| iii) Fellowship in Clinical Nephrology | viii) Undergraduate Courses:-                 |
| iv) Fellowship in Pediatric Nephrology | ix) Diploma in Renal Nursing                  |
| v) Diploma in Renal Nursing            |   |

### Short Courses

These are short skill based 12-week short courses to build capacity for staff working in renal clinics in public and the private sector.

- |   |  |
|---|--|
| i) Preceptorship in renal nursing             | iv) Preceptorship in Dialysis Access                   |
| ii) Preceptorship in renal nutrition          | v) Preceptorship in renal laboratory Science           |
| iii) Preceptorship in renal pharmacy practice | vi) Preceptorship in for Physicians & Medical Officers |

## Strategic Issues

The activities at the institute were ongoing despite the COVID- 19 break. The Registrars undertaking the Fellowship courses and Masters of renal nursing were on session throughout and blended learning- online and clinical practice was ongoing. The diploma in renal Nursing undertook their studies online to avoid overcrowding in the wards and clinical practice areas. There has also been a good working relationship between staff from EAKI and the renal unit KNH in research, organising of CMEs, organisation of outreach actives and Lectures.

## Achievements

The institutes achievements are as follows:-

- i) Virtual graduation of four students who specialized in the Master of Science in Renal Nursing and twenty eight in the Diploma of Renal Nursing.
- ii) Admission of fifty-one students specializing in various fields.
- iii) Conducting fifteen (15) online webinars
- iv) Conducting online examinations while examining students.
- v) Organising online virtual seminars- KRACON 2020 16<sup>th</sup> – 18<sup>th</sup> October, 2020 whose Theme was Increasing access to kidney services

## Projections

The Institutes future lies in the proposed state of the art facility to be built as a center of excellence of the East Africa Kidney Institute hospital and Training Center

The notice for change of use of land where the EAKI Complex has been placed in readiness for construction which was scheduled to begin in the month of April 2019. We expect the Institute to be functional by the year 2021.

## Staff Portfolio

The Institute has a staff compliment of three (3).

The Director - Prof. Peter M. Ngugi  
Snr Administrative Assistant - Ms. Winfred Chitere  
Snr Secretary - Ms. Catherine Chinga

The Institute does not have teaching staff of its own it is assisted by staff from other departments.

## Projections

The Institutes future lies in the proposed state of the art facility to be built as a center of excellence of the East Africa Kidney Institute hospital and Training Center

The notice for change of use of land where the EAKI Complex has been placed in readiness for construction, which began in the month of November 2019. We expect the Institute to be functional by the year 2022.

## KAVI – Institute of Clinical Research

### Introduction

KAVI was established in 1998 as a research unit within the Department of Medical Microbiology, School of Medicine, University of Nairobi. KAVI's initial motivation was to conduct basic HIV research, epidemiology and carry out HIV/AIDS vaccine clinical trials.

With the rapid progression of globalization and increased interest in global health issues, universities around the world have developed global health centers or institutes to spearhead research and training in global health. KAVI as a research unit progressed to be KAVI-Institute of Clinical Research (KAVI-ICR) due to the various global health issues including the pandemics.

KAVI-ICR has more than two decades of clinical research, community engagement and capacity building projects. The Institute has two sites one located at KNH Medical School Campus, University of Nairobi and a community site located within the Kangemi Health Centre, a health clinic in Nairobi County.

Whereas KAVI's skill base is predominantly in the area of infectious diseases, KAVI – ICR is collaborating with other departments within the College of Health Sciences as well as local and foreign Institutions in order to leverage the necessary skills in the advancement of research in areas of Communicable diseases, Non-communicable diseases and Knowledge translation.

### Programmes

Knowledge translation involves three important processes of research, policy development and implementation. KAVI– ICR has been availing data emanating from the Institute's research projects and programmes and will continue doing so to policy makers for policy development, changes and implementation.

As part of the Institute's, mandate to capacity building, KAVI-ICR offers Doctor of Philosophy (PhD) Degrees in the following fields;

- Virology
- Immunology
- Infectious Diseases
- Clinical Research
- Behavioural Science
- Implementation Science
- Operational Science

### Research Programmes

KAVI-ICR has been involved in carrying out phase I and phase II vaccine clinical trials over the years in addition to research aimed at understanding the epidemiology and basic science of HIV/AIDS.

This year in particular the Institute was able to execute the following protocols in partnership with different sponsors

- a) Protocol W001
- b) Protocol C100
- c) Protocol Great/Hivcore006
- d) Protocol O, Protocol L015
- e) Natural Killer (NK) Study
- f) Ebola Sub-Study (Eblvacc)
- g) TK 18 and LTFU

## Strategic Issues

The current KAVI-ICR Strategic Plan runs from the year 2018 to 2023 cascaded from the College of Health Sciences Strategic Plan. KAVI being fully donor funded has to strategies every other year to not only receive grants but to also maintain the best technical and non-technical staff for superior quality output thus having a competitive edge over other research organizations competing for the same grants. KAVI-ICR is associated with quality and that is what makes the research institute a place of choice for many donors.

The Institute naturally has financial challenges due to the current economic downturn, as a result, of competition for the few donors around the world who are still willing to fund such institutions. The challenges that require strategic planning and implementation include:

- i) Increasing the number of collaborators,
- ii) Increasing the number programs,
- iii) Increasing the number of publications in high impact peer reviewed journals,
- iv) Increasing the number of projects that impact policy,
- v) Recruiting and maintaining highly qualified scientific and non-scientific staff
- vi) Continuously maintaining properly funded research laboratory and clinics.

As noted above, KAVI-ICR has been putting tremendous effort towards achieving self-sustainability by holding onto the main donors but also diversifying to cover communicable diseases and Non-communicable diseases at the same time.

## KAVI-ICR, Management

Director	Prof. Walter Jaoko
Senior Research Scientist	Prof. Omu Anzala
Clinical Trials Team Leader	Dr. Gaudensia Mutua
Basic Science Team Leader	Dr. Marianne Mureithi
Laboratory Manager	Dr. Moses Masika
Data/IT Manager	Mr. Moses Muriuki
Finance	Ms. Nancy Thairu
Administration	Mr. Bernard Omondi

## Staff Portfolio

KAVI- Institute of Clinical Research has been keen over the years to develop human resource capacity for various clinical trials and programmes that it runs.

The Institutes staff members have undergone various trainings within the region (East Africa) with overseas placements also taking place. This has greatly improved the knowledge and skills of staff resulting in improved efficiency and opportunities for various types of collaboration.

During the year 2020, KAVI-ICR had the following personnel:

Designation	No. of Staff
Director	1
Senior Scientist	1
Accountant	1
Administration Manager	1
Administrator	1
Clinical Officers	4
Clinical Trial Physicians	2
Clinical Trials coordinator	1
Data Entry Clerk	3
Drivers	3
Finance Manager	1
I.C.T. Manager	1
Laboratory Manager	1
Laboratory Technologists	8
Nurse/Counsellor	9
Office Assistants	3
Pharmaceutical Technician	2
PhD Fellow	2
Receptionists	1
Stores Officer	1
<b>Total</b>	<b>47</b>

## Funding and Financial Management

During the period January – December 2020, KAVI-ICR managed to attract donors/partners interested in working with the Institute. Since KAVI-ICR is fully financed by research grants, it received the following funds that were utilized in research and programmes activities;

Partner/Sponsor	Funds Received (Kshs.)
IAVI	73,721,825
GREAT (EDCTP)	6,122,085
Other EDTCP studies	2,047,809
DFG	2,287,166
CDC	411,000
Johnson & Johnson Study	425,786
Young Scientist Award	1,263,532
<b>Total</b>	<b>86,279,203</b>



Each partner has a MoU drawn and signed between them and the University of Nairobi on activities to be undertaken and the corresponding statement of works in relation to the activities.

The IAVI, GREAT, EDTCP and DFG funds are monitored for compliance and audited quarterly and/or annually as per the MoU or sub-awards.

KAVI-ICR complies fully with the University of Nairobi financial regulations and as such all the transactions and process are subjected to internal control/audit.

## Community Outreach

KAVI- ICR has a well-established Community Office which proved vital in our efforts to engage community, stakeholders and policy makers. The Institute has been utilizing the already established links by our community mobilizers to reach out to the community through peer leaders as a way of encouraging sustainability even after the clinical trials or programmes are over.

The current calendar year (2020) was not very conducive for our main community activities due to the COVID -19 pandemic and as such we did not undertake the following activities that we cover every year:

### World AIDS Vaccine Day:

HIV Vaccine Awareness Day (HVAD) is observed annually on May 18<sup>th</sup> 2020. This observance provides an opportunity to recognize and thank the many volunteers, community members, health professionals, and scientists who are working together to find a safe and effective preventive HIV vaccine. It is also a day to educate communities across the nation about the importance of preventive HIV vaccine research.

### World AIDS Day:

World AIDS Day is held on 1 December each year and is an opportunity for people worldwide to unite in the fight against HIV, show their support for people living with HIV and to commemorate people who have died. World AIDS Day is important as it reminds the public and Government that HIV has not gone away – there is still a vital need to raise money, increase awareness, fight prejudice and improve education.

## Achievements during the Year 2020

### Infrastructure

During the same period, KAVI-Institute of Clinical Research in collaboration with European and Developing Countries Clinical Trials Partnership (EDTCP) finalized KAVI-ICR third floor building that is currently being utilized for research activities. The laboratories on the second floor were also refurbished in order to accommodate the current institutional requirement for CUE and other authorities.

The COVID-19 pandemic clamped down most of the activities during the year but KAVI-ICR achieved several things including the following:

Date	Item	Remarks
March 12, 2020	Public Lecture regarding COVID-19 held at the UoN by UoN Dons	Lead by Prof. Omu Anzala and Dr. Moses Masika <a href="https://kavi-icr.uonbi.ac.ke/index.php/event/public-forum-covid-19">https://kavi-icr.uonbi.ac.ke/index.php/event/public-forum-covid-19</a>

April 6, 2020	UoN dons appointed to Advisory Board for covid-19 interventions.	Prof. Omu Anzala appointed to the National Advisory Board for Covid-19 interventions
November 11, 2020	Research Partnership agreement signed between Heinrich Pette Institute, Leibniz Institute for Experimental Virology and UoN	The partnership agreement was signed for joint research work between (Heinrich Pette Institute and UoN)
November 12, 2020	UoN dons appointed to Chair the National Laboratory Technical Advisory Committee	Prof. Omu Anzala appointed to chair the National Laboratory Technical Advisory Committee
November 29, 2020	Research Partnership agreement signed between Karolinka Institute and UoN	The partnership agreement paves way for joint research work between the two entities (Karolinka Institute and UoN)
October 21, 2020	Online Thesis defense for post graduate students	PhD student from KAVI-ICR
December 11, 2020	Virtual 64th graduation ceremony held successfully at the Great Court	PhD student from KAVI-ICR

## Partnerships and Linkages

The following is a list of major Institutions that currently work/collaborates with KAVI- ICR on various research and programmes activities;

1. Clinical Research Africa Limited (CRO)
2. European and Development Countries Clinical Trials Partnership (EDCTP)
3. GlaxoSmithKline Biologicals
4. International AIDS Vaccine Initiative (IAVI)
5. International Atomic Energy Agency (IAEA) and the UNAIDS WHO African AIDS Vaccine Program (AAVP).
6. International Development Research Centre (IDRC), through Global Health Research Initiative( GHRI)
7. Janssen Pharmaceutical
8. NIAID, NIH, DHHS Division of microbiology and infectious diseases
9. The Governing Council of the University of Toronto
10. University of Manitoba
11. US Centres for Disease Control and Prevention (CDC)
12. Heinrich Pette Institute, Leibniz Institute for Experimental Virology
13. Karolinka Institute

## Publications

1. Turner P, Rupali P, Opintan JA, **Jaoko W**, Feasey NA, Peacock SJ, Ashley EA (2020). Laboratory informatics capacity is a neglected component of effective antimicrobial resistance surveillance in resource-limited settings. *Lancet Infectious Diseases* (in print)
2. **Robert Langat**, **Bashir Farah**, Jackton Indangasi, Simon Ogola, **Gloria Omosa-Manyonyi**, **Omu Anzala**, Jean Bizimana, Emmanuel Tekirya, Caroline Ngetsa, Moses Silwamba, Enoch Muyanja, Paramesh Chetty, Maureen Jangano, Nancy Hills, Jill Gilmour, Len Dally, Josephine H Cox, Peter Hayes (2020). Performance of an IAVI-African Network of Clinical Research Laboratories in Standardized ELISpot and Peripheral Blood Mononuclear Cell Processing in Support of HIV Vaccine Clinical Trials. *Africa Journal of Laboratory Medicine* 10(1) (in print)
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8. Mpendo J, **Mutua G**, Nanvubya A, et al. (2020). Acceptability and tolerability of repeated intramuscular electroporation of Multi-antigenic HIV (HIVMAG) DNA vaccine among healthy African participants in a phase 1 randomized controlled trial. *PLoS One*. 2020;15(5):e0233151. Published 2020 May 29. doi:10.1371/journal.pone.0233151
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## Institute of Tropical and Infectious Diseases (UNITID)



### Introduction

Dr. Dufton Mwaengo is the Director at the institute dupitized by Prof. Julius O. Oyugi.

This is the eighteenth year since The University of Nairobi Institute of Tropical and Infectious Diseases (UNITID) was established in 2003. The Institute was established as a training and biomedical research centre under the College of Health Sciences of the University of Nairobi. The institute is a virtual institute drawing its research, academic and administrative staff from the existing University of Nairobi staff structure and other research and training institutions both locally and internationally.

### Programmes and Services Offered

There are six (6) programmes offered at UNITID namely:

1. Postgraduate Diploma in Research Methodology (PGD-RM),
2. Master of Science in Tropical and Infectious Diseases (MSc. TID),
3. Master of Science in Medical Statistics (MSc. MedStat),
4. Fellowship in Healthcare Capacity Building for Sustainable Development (Health Economics, Health Informatics, Epidemiology and Biostatistics, Monitoring & Evaluation and Program Management)
5. PhD in Tropical & Infectious Diseases
6. PhD in Medical Statistics).

### The Courses Duration is as follows:

Programme	Programme Duration
Postgraduate Diploma in Research Methodology	12 months
MSc. Tropical and Infectious Diseases	2 years
MSc. Medical Statistics	2 years
PhD in Tropical & Infectious Diseases	3 years
PhD in Medical Statistics	3 years
Fellowship in Healthcare Capacity Building for Sustainable Development	2 years

### Strategic Issues

The Institute strategic issues are:

- i) Have a diversified range of training programs up to PhD level.
- ii) Expand collaboration both locally and internationally.
- iii) Create a state of the art teaching, training, research and practice facilities.
- iv) Serve as a reference resource centre for management of tropical and infectious diseases.
- v) Mobilize resource locally, regionally and internationally for self-sustenance.
- vi) Have an effective and efficient management structure and systems.
- vii) Have an active and growing research programs in UNITID.
- viii) Realize adequate and committed staff with adequate and quality physical infrastructure.
- ix) Realize public health policy changes.

### Major Achievements in the Year 2020

Date	Item	Remarks
December 23, 2020	UNITID signs an MOU with Dan Jeen University and Africal Lions Group for laboratory Capacity Building in COVID – 19 Testing.	This collaboration will lead to massive COVID Testing in the country.
December 1, 2020	UNITID was awarded a grant by NIH titled Clinical Trial with Levonorgestrel Intrauterine System Among Anemic Women in Kenya	The overall goal of this proposal is to give anemic women an opportunity to try the levonorgestrel intrauterine system and improved scientific approaches that will result to healthier living and healthier beginnings to pregnancy when desired.
May 5, 2020	Online teaching and learning commences	In response to COVID-19 pandemic, teaching and learning for MSc. Tropical and Infectious Diseases and Medical Statistics were transitioned smoothly to online platforms.
August 24, 2020 – October 9, 2020	Online examinations	Online examinations were done.

August 26, 2020	Online registration & orientation of new students	Successful enrollment and orientation of first year students conducted.
December 11, 2020	Virtual 64th Graduation Ceremony held successfully at the Great Court	21 graduands conferred degrees and awarded diplomas by the Chancellor, Dr. Vijoo Rattansi.
November 16, 2020	Online Thesis defense for post graduate students	Enabled completion and graduation of postgraduate students

## Corporate and Community Outreach Activities

**Deputy Director, Prof Oyugi:** TV appearances, education on COVID - 19 to schools in Nairobi

Since the beginning of COVID-19 in early 2020, Prof Julius Oyugi has been educating the public on various aspects of covid19 through local and international Television networks (Aljazeera, EBRU, K24, NTV and KTN). He has also given talks to Schools on covid19. The schools include Kindu Secondary school in Kisumu County and Kilimani Little Scholars Academy in Nairobi County.

Prof. Thumbi is a Member and Chair of the Kenya COVID-19 technical team on modeling, he has appeared on various media platforms BBC News Africa, YouTube, CITIZEN TV among others educating the public on COVID-19 Disease modeling. He has done talks on and also.

Phd Student Ms. Therese Umuhoza did a webinar series on “Morbidity Burden, Seasonality and factors Associated with Respiratory Syncytial Viruses, Parainfluenza and Adenoviruses Infections in Kenya” engaging the Kenyan and Rwandese community.

## Staff Portfolio

It comprises of the following:

Designation	No. of Staff
Director	1
Deputy Director	1
Senior Admin. Assistant	1
Senior Lab technologist	1
Secretary	1
Driver	1
Cleaner/Messenger	1
<b>Total</b>	<b>7</b>

## Projections

- Income Generating Activity (IGA)** – In collaboration with Africa Lion Advisory Ltd (ALA), UNITID signed an MoU with ALA in December 2020 to do COVID-19 disease virus testing. In this collaboration, ALA will provide testing kits, consumables, and pay laboratory technologists while UNITID will test and release the results to clients. Once the initial investment by ALA is recovered, both partners will share the profits equally.
- Research** – UNITID has the following collaborative partners in research
  - DAKTARI Biotech – this is a US-based biotechnology company where pre-clinical testing of drugs against infectious diseases (e.g. HIV-1) will be done at UNITID laboratories. There will also be joint discovery of novel drugs by both partners



- ii) IDZOMO is a research collaboration between the UoN (Prof Mungai of EAKI) and University of Pretoria (South Africa) and Garvan Institute of Medical Research, Australia. UNITID is participating in this collaborative effort to determine the SARS-CoV-2 virus-host interactions for infected people with severe disease and those with asymptomatic infections.
- iii) FHI360 grant – this is a research grant to support a clinical trial looking at the effect of oral contraception in anemic women in Kenya. Several clinical parameters will be evaluated at UNITID labs
- iv) UNITAID/PATH project – UNITID has partnered with PATH in an effort to determine the applicability of non-invasive methods to detect childhood fevers at primary care facilities. Early diagnosis of childhood (under 5 yrs old) fevers will assist healthcare workers in rural communities identify and offer appropriate treatment to severely ill children.
- v) UNITID will continue to partner with new collaborators to write joint research grant proposals in 2021
- vi) **DTRA activities – ongoing project.** UNITID has been working with Colorado State University through a grant from DTRA to build laboratory capacity for zoonotic disease surveillance in Kajiado and Isiolo Counties since late 2019. The following are planned activities for the year 2021.
  - Validation of various Brucellosis rose Bengal test kits-UNITID- Last week of January 2021
  - Mentorship follow-up of the staff trained on SOP writing- February 2021
  - Screening of DBS for COVID19 antibodies for Kajiado and Isiolo (MSC for Esther)- start in February 2021
  - Developing training modules for Biosafety/Biosecurity-February 2021
  - Conduct clinician mentorship training on zoonotic diseases case management and one health diagnosis stewardship. This will enhance the request for laboratory testing and reinforce the need for empirical evidence when managing cases.- March 2021
  - Conduct SOP writing SOP for Isiolo and 2nd Cohort Kajiado lab staff- April 2021
  - Establishment of PCR and ELISA testing platforms at UNITID and screen serum from DBS for RVF, Q-Fever, Brucellosis and CCHF -April-May, 2021
  - Conduct training of the lab techs from Isiolo and Kajiado on Biosafety/bio security-June 2021
- vii) **UNITID-FAO planned activities.** In the year 2020 UNITID received a small grant from Food and Agriculture organization (FAO) for laboratory analysis of samples for zoonotic diseases as part of disease surveillance in Marsabit County. The following activities are planned for the year 2021.
  - Obtain Serum samples obtained from WSU for laboratory analysis.
  - Develop animal and human Sample testing protocols/SOPs
  - Test or analyse 3538 human and animal serum samples for brucellosis and Q fever

## Collaborations

### UNITID-Italian Embassy Collaboration

In the year 2020, UNITID was contacted by Italian Embassy for a possible collaboration between the two institutions. While the collaborations has not been fully executed the following activities have been planned to ensure the collaboration is finalized;

- A visit to Italian Embassy-planned for March 2021.
- A talk on the impact of epidemics and global health-March 2021.

# College of Humanities and Social Sciences

## Faculty of Arts

### Introduction

The Faculty of Arts, University of Nairobi, offers a wide range of academic programmes leading to Bachelor of Arts (BA), Post Graduate Diploma (PGDs), Master of Arts (MA) in and Doctor of Philosophy (PhD) degrees in diverse fields of humanities and social sciences spread across the following eleven (11) Departments and one (1) sub-Department.

Department	Link for more information
Geography and Environmental Studies	<a href="http://geography.uonbi.ac.ke">http://geography.uonbi.ac.ke</a>
History and Archaeology	<a href="http://history.uonbi.ac.ke">http://history.uonbi.ac.ke</a>
Kiswahili	<a href="http://kiswahili.uonbi.ac.ke">http://kiswahili.uonbi.ac.ke</a>
Linguistics and Languages	<a href="http://linguistics.uonbi.ac.ke">http://linguistics.uonbi.ac.ke</a>
Literature	<a href="http://literature.uonbi.ac.ke">http://literature.uonbi.ac.ke</a>
Philosophy and Religious Studies	<a href="http://philosophy.uonbi.ac.ke">http://philosophy.uonbi.ac.ke</a>
Political Science and Public Administration	<a href="http://politicalscience.uonbi.ac.ke">http://politicalscience.uonbi.ac.ke</a>
Psychology	<a href="http://psychology.uonbi.ac.ke">http://psychology.uonbi.ac.ke</a>
Sociology and Social Work	<a href="http://sociology.uonbi.ac.ke">http://sociology.uonbi.ac.ke</a>
Communication Skills and Studies	<a href="http://languageskills.uonbi.ac.ke">http://languageskills.uonbi.ac.ke</a>
Library and Information Science	<a href="http://dlis.uonbi.ac.ke">http://dlis.uonbi.ac.ke</a>
Sub- Department of French	<a href="http://french.uonbi.ac.ke">http://french.uonbi.ac.ke</a>

In addition the faculty also offers a number of Ordinary Diploma and Certificate programmes.

Being one of the largest and oldest academic Faculties in the country, the Faculty of Arts has produced a significant pool of highly trained and skilled professionals who have continued to play a significant role in Kenya's development and beyond. Furthermore, the alumni of the Faculty are employed in all sectors of the economy. The Faculty aspires to be a Faculty of international academic repute that is at the cutting edge of research and transmission of knowledge in the humanities and social sciences. Our mission is to promote excellence in teaching, research and publications in humanities and social sciences, generation and dissemination of knowledge on cultural, socio-economic, political and geographical environment, while preserving and encouraging the best in our national heritage. (<http://arts.uonbi.ac.ke>)

### Programmes and Services Offered

As part of its mandate in teaching and training, the Faculty offers the following undergraduate and postgraduate programmes housed in the academic departments listed below:

### Department of Literature

1. BA in Literature
2. BA in Performing Arts
3. MA in Literature
4. MA in Theatre and Film Studies
5. PhD in Literature

### Department of Geography and Environmental Studies

1. Certificate in Natural Resource Management
2. Diploma in Natural Resource Management
3. BA in Geography and Environmental Studies;
4. BSc in Geography and Environmental Studies; and
5. BEd in Geography
6. MA in Agricultural Geography;
7. MA in Biodiversity and Natural Resources Management;
8. MA in Climatology;
9. MA in Economic Geography;
10. MA in Environmental Planning and Management;
11. MA in Geomorphology;
12. MA in Population Geography;
13. MA in Transport Geography;
14. MA in Urban Geography;
15. MA in Water Resources Management and
16. MA in Industrial Geography
17. Master of Science Programmes: (1) MSc in Hydrology; and (2) MSc in Sustainable Urban Development
18. PhD Programmes: PhD in all fields of Geography and Environmental Studies

### Department of Communication Skills and Studies

Common course – communication skills and studies

### Department of Library and Information Science

1. Bachelor of Information Science
2. Master of Library and Information Science
3. Master of Information Science
4. Doctor of Philosophy in Information Science

### Professional Training Programmes

#### Department of Philosophy and Religious Studies

1. Certificate in Philosophy
2. Diploma in Philosophy
3. Bachelor of Arts (Philosophy and/or Religious studies or any other discipline.
4. Master of Arts in Philosophy
5. Master of Arts in Religious Studies
6. Master of Arts in Human Rights
7. PhD in Philosophy
8. PhD in Religious studies
9. PhD in Human Rights

### Department of History and Archaeology

1. PhD in Archaeology
2. PhD in History
3. PhD in Armed Conflict and Peace Studies
4. MA in Archaeology
5. MA in History
6. MA in Armed Conflict and Peace Studies
7. BA Archaeology
8. BA History
9. BA Conflict and Peace Studies
10. BA Tourism
11. Diploma in Cultural Tourism
12. Diploma in Conflict and Peace Studies

### Department of Kiswahili

1. BA (Kiswahili)
2. BEEd (Service Course)
3. MA. in Kiswahili Studies
4. PhD in Kiswahili Literature & Kiswahili Linguistics

All Faculty of Arts programmes are offered in three modes of learning: Module I (full-time on campus), Module II (part-time – day and evening) and Module III (open, distance and e-learning).

The Faculty also offers Bachelor of Arts Degree programme in Political Science and Public Administration; Psychology; Language and Communication; and Sociology and Social Work at Kisumu and Mombasa campuses

### Strategic Issues

#### Mandate

The Mandate of the Faculty is Teaching and Learning, Research and Innovation, Consultancy and Community Service. The objectives and functions of the Faculty are given in detail in the University of Nairobi Charter 2013.

#### Vision

The vision of the Faculty remains unchanged: A leading Faculty committed to excellence in teaching, training, research, knowledge integration, and consultancy and community service.

#### Mission

The mission of the Faculty remains unchanged: To provide quality training, learning, research and consultancy in humanities and social sciences by creating, preserving, transmitting, integration and utilizing knowledge for the benefit of humanity.

#### Motto

The clarion call for the Faculty during this plan period will be: Leading with excellence

#### Core Values

The greatest challenge is that the Faculty has had no mechanisms to operationalize the core values and have them instilled in all staff and students to guide their behaviour and actions as part of the institutional culture. In this strategic plan, there are strategies in the Governance and Culture strategic theme that will help to do this.

The Faculty shall be bound by the National Values and Principles of Governance as espoused in Articles 10 and 232 of the Constitution. The key values include inclusiveness, professionalism, good governance, integrity, transparency and accountability, equity, and sustainable development. The Faculty shall be further be guided by University of Nairobi's core values.

## Major Achievements in the Year 2020

### Research Projects

Research Project/Activities Done by Members of the Department	Key Participant(s)
Gambella wetland and spring conservation and protection initiative management in Isiolo/Meru Counties. Project sponsored by WYSS Academy for Nature, Switzerland – ongoing project	Dr. Boniface Wambua Dr. Thuita Thenya Dr. Stellah Mukhovi Dr. Boniface Kiteme
Participated in Research for the Women Economic Empowerment Hub (African Women Studies Centre, UON)	Dr. Parita Shah
A joint research collaborative Venture with Dimitrie Cantemir University in Romania on the Ogiek Community in Nakuru County	Dr. Shadrack Kithiia and Prof. Mihai (Romania)
IDRC-funded research on Urban Food Systems Governance for NCD Prevention in Africa (Nourishing Spaces) Project, covering Cape Town, Kimberly (South Africa), Windhoek, Oshakati (Namibia), Kisumu and Nairobi (Kenya).	Dr. Samuel Owuor
Social Sciences and Humanities Research Council (SSHRC)/IDRC-funded Hungry Cities Partnership (HCP) Project, covering Cape Town (South Africa), Bangalore (India), Kingston (Jamaica), Maputo (Mozambique), Mexico City (Mexico), Nairobi (Kenya) and Nanjing (China).	Dr. Samuel Owuor
Swiss National Science Foundation/Swiss Agency for Development and Cooperation-funded Sustainable Governance of Food Systems Project in Kenya and Bolivia, in collaboration with Agroecología Universidad Cochabamba (Bolivia), University of Bern (Switzerland) and Centre for Training and Integrated Research for ASAL Development (CETRAD, Kenya).	Dr. Samuel Owuor
Rights & Resilience Project on pastoral and agro-pastoral climate change adaptation in Kenya. The project is a jointed activity between University of Nairobi (Department of Geography, IDS and ICCA) and University of Copenhagen sponsored by DANINDA Fellowship Center with 3 PhD student on scholarship- Ongoing	Dr. Martin Marani and Prof Karuti Kanyinga of IDS
Arua-Mellon Funded Research Grant for training of PhD students from five universities in Africa namely: University of Ghana, University of Cape Town, Witwatersrand University, University of Nairobi and University of Zimbabwe	Prof. Elias Ayiemba
Post doc Researcher, 2019-2020 on food systems, under CDE Switzerland and CETRAD	Dr. Stella Mukhovi and Dr Kiteme
Earth observation and environmental sensing for climate-smart sustainable agropastoral ecosystem transformation in East Africa – ESSA. Research project sponsored by EU in Amboseli ecosystem, Chulu hills and Ethiopia with scholarship s for 1 PhD and 2 master students	Dr. Francis Mwaura
Re-evaluation of the M.SC programme in Dryland Natural Resources Management for Gariss University	Dr. Francis Mwaura

Research Project/Activities Done by Members of the Department	Key Participant(s)
EIA for the construction of a transport Termini of Asian Quarter (Bus station, Modern Stalls, Business Park & Social Amenities by Nyeri County Government	Dr. Francis Mwaura
Thika Dam hydrological studies funded by Nipon Koei Company	Dr. John Nyangaga
Research Grant on Development of New Low Cost Sensors for use in tropical environments Sponsored by United Kingdom Research and Innovation	Dr. John Nyangaga
Wahu Kaara: A Biography writing in progress.	Dr. George Gona
Kenya's underground in Exile: the Dar-es-Salaam Group.	Dr. George Gona
The 1971 Revolution.	Dr. George Gona
Sourcing financial support for M.A. students USD 15,000	Ephraim Wahome
Ongoing Research – Resilience Cultural heritage tourism and COVID-19 pandemic -Joint	Ephraim Wahome
Ongoing Research - 'Labour and Leisure': Joint University of Nairobi and Humboldt University   Joint Research - Joint	Ephraim Wahome
The Aftermath of Big Game hunting in Kenyas History–Joint	Ephraim Wahome
Shared futures Project -Joint	Ephraim Wahome

## Publications

- Henry Indangasi (2020). "The Pitfalls of Descriptivism and Relativism in the Study of Language and Literature" Published in The Nairobi Journal of Literature.
- Henry Indangasi (2020). "Covid- 19 and Our Humanity" in *Soaring above the Pandemic: Poetic Echoes from East Africa*. Edited by Peter Amuka et al. Bungoma, Kenya: InterCEN Books.
- Masumi Odari, Jennifer Muchiri, Mumia G. Osaaji (2020). The Agile Thinking and Subversion in Chinua Achebe's The Education of a British-Protected Child.
- Alina N Rinkanya, Masumi H Odari, Wambua Kawive (2020). Theatre in Kenya and the Construct of Leadership in Francis Imbuga's Aminata
- Alina N Rinkanya, Masumi H Odari, Shadrach Mwanthi (2020). A Critical Thinking Approach to Shakespeare's Tragedies: King Lear and Romeo and Juliet
- Henry Indangasi (2020). Critical Thinking, Moral Integrity, and Citizenship: Lessons from W.E.B. Du Bois' Academic Career and his Relationship with Africa
- Ciarunji Chesaina (2020). Critical Thinking, Moral Integrity, and Citizenship: Lessons from W.E.B. Du Bois' Academic Career and his Relationship with Africa
- Joram K. Mbui (2020). Critical Thinking, Moral Integrity, and Citizenship: Lessons from W.E.B. Du Bois' Academic Career and his Relationship with Africa
- D.H. Kiiru, (2020). Formal Features in Alex la Guma's "Come Back to Tashkent," *Asian Journal of African Studies*, Vol. 47 February 2020. 99-119
- D.H. Kiiru (2020). Teaching Canadian Literature in the University of Nairobi, Eastern African Literary and Cultural Studies, DOI: 10.1080/23277408.2020.1767985, 12 June 2020. 1-17
- Mwangi, V., S. Owuor, B. Kiteme & M. Giger (2020). Beef production in the rangelands: A comparative assessment between pastoralism and large-scale ranching in Laikipia County, Kenya. *Agriculture* 2020, 10, 399.

12. Buyana, K., S. Lwasa, D. Tugume, P. Mukwaya, J. Walubwa, S. Owuor, P. Kasaija, H. Sseviiri, G. Nsangi & D. Byarugaba (2020). Pathways for resilience to climate change in African cities. *Environ. Res. Lett.* 2020, 15, 073002.
13. Mwangi, V., S. Owuor, B. Kiteme, M. Giger, J. Jacobi & O. Kirui (2020). Linking household food security and food value chains in North West Mt. Kenya. *Sustainability* 2020, 12, 4999.
14. David Muriithi, Boniface Wambua and Kennedy Omoke: An assessment of constraints and opportunities for adopting the greenhouse farming technology by the smallholder farmers of Nyandarua county of Kenya, September 2020
15. David I. Muriithi<sup>1\*</sup>, Boniface N. Wambua<sup>2</sup> and Kennedy J. Omoke: Characterization of small-scale farmers' low levels of adoption to crop insurance as an adaptation strategy to climate variability in nyandarua county of kenya. *Asian Journal of Agriculture and Food Sciences* (ISSN: 2321 –1571) Volume 8 –Issue 4, August 2020
16. Oluoko-Odingo, A.A. & Ayiamba, E.H.O. 2020. Food Security in the Afro-China Cooperation: The Hanging, Untapped 'Win-Win' Partnership. *The African Review* 47(2020): 1-27.
17. Akukwe, T.I, Oluoko-Odingo, A.A., Krhoda, G.O. 2020. Do floods affect food security? A before-and-after comparative study of flood-affected households' food security status in South-Eastern Nigeria. *Bulletin of Geography, Socio-economic Series*, No. 47 (2020): 115–131.
18. Irandu, E.M. and Owilla, H.H. (2020d). "The Economic Implications of Belt and Road Initiative in the Development of Railway Transport Infrastructure in Africa: The Case of the Standard Gauge Railway in Kenya". *The African Review*, 47(2). 457–480.
19. Togoch, H. Kemboi, Evaristus M. Irandu and Thuita Thenya. (2020c). "Patterns of Livelihood Diversification among Kamnarok National Reserve adjacent Communities in Baringo County, Kenya". *Journal of Sustainability, Environment and Peace*. Vol. 3(2) 55-62.
20. Togoch H. Kemboi, Irandu M. Evaristus, Thuita Thenya. (2020b). "Conflicts over resource use in Kamnarok National Reserve and the adjacent community". *Journal of Environmental Science* 2(2), 236-246.
21. Kithuka, J.M., Irandu EM, Moronge JM/ (2020a). "The role of periodic markets in provision of manufactured goods and creation of income in rural areas: a case study of selected markets in Mukaa Sub County; Kenya." *International Journal of Scientific Research and Innovative Technology*
22. Shah. P., Changing gender partiality amongst indigenous communities: The case of the Maasai around the Maasai Mara Conservancies in Kenya. *Pathways to African Feminism and Development* Vol 5(1): 102-117
23. Atieno, E. and Moronge, J. (2020a). Hazardous Biomedical Waste Management in a Level Four Private Hospital in Nairobi County, Kenya. *Journal of Sustainability, Environment and Peace*, 3(2), 34-40. July. <http://jsep.uonbi.ac.ke/ojs/index.php/jsep/article/view/272>
24. Martin Marani, Sylvia Rotich and Mikkel Funder (2020). Maasai lessons to the world on managing multiple crises. Published on 05-July-2020 in the Daily Monitor online at [www.monitor.co.ug/uganda/news/national/maasai-lessons-to-the-world-on-managing-multiple-crises-1898346](http://www.monitor.co.ug/uganda/news/national/maasai-lessons-to-the-world-on-managing-multiple-crises-1898346)
25. Mikkel Funder, Martin Marani, Sylvia Rotich (2020). *Hele verden kan lære af Kenyas masaier* (The whole world can learn from Kenya's Maasai). Published on 22-June-2020 in the Jeyllands-Posten, <https://jyllands-posten.dk/debat/international/ECE12230704/hele-verden-kan-laere-af-kenyas-masaier/>
26. Atieno, E. and Moronge, J. (2020a). Hazardous Biomedical Waste Management in a Level Four Private Hospital in Nairobi County, Kenya. *Journal of Sustainability, Environment and Peace*, 3(2), 34-40. July. <http://jsep.uonbi.ac.ke/ojs/index.php/jsep/article/view/272>
27. Akukwe, T.I. Oluoko-Odingo, A.A. and Krhoda G.O. (2020). Do floods affect food security? A before-and-after comparative study of flood-affected households' food security status in South-Eastern Nigeria. *Bulletin of Geography. Socio-economic Series*, 47(47): 115-131. DOI: <http://doi.org/10.2478/bog-2020-0007>

28. Manoa D.O, Mwaura F, Thuita T, Mukhovi S (2020): A Review of the Visible and Hidden Opportunity Costs of Human-Wildlife Conflict in Kenya. *Journal of Biodiversity Management & Forestry*
29. Wabwire, E., Mukhovi, S. Nyandega, I.N (2020) The Spatial and Temporal Characteristics of Rainfall over the Lake Victoria Basin of Kenya in 1987-2016. *Atmospheric and Climate Sciences* 2020 (10);: 240-257
30. Mukhovi, S., Jacobi, J., Llanque, A., Rist, S., Delgado, J.M.F., Kiteme, B. Ifejika S.C. (2020) Social self organisation and social-ecological resilience in food systems; Lessons learned from Smallholders in Kenya and Gurani indigenous communities in Bolivia. *Food studies An interdisciplinary journal*, 10(1):19-42
31. Jacobi, J., Mukhovi, S., Llanque, A., Giger, M., Bessa, A., Golay, C., Ifejika Speranza, C., Mwangi, V., Augstburger, H., Buergi-Bonanomi, E., Haller, T., Kiteme, B. P., Delgado Burgoa, J. M. F., Tribaldos, T., & Rist, S. (2020). A new understanding and evaluation of food sustainability in six different food systems in Kenya and Bolivia. *Scientific Reports*, 10(1), 19145. <https://doi.org/10.1038/s41598-020-76284-y>
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34. Nyabul, P. (2020) Theuri, Mwai, Njuguna Waitherero and Patrick Nyabul: “John Dewey’s Theory of Progressive Education” in *African Research Journal of Education and Social Sciences*, 7(2), 2020 ISSN (online): 2312-0134 | Website: [www.arjess.org](http://www.arjess.org)
35. Nyabul, P. (2020) Kindo, Noel, Patrick Nyabul and Simon Njuguna: “Ethical Issues on IVF and Surrogacy” in *International Journal of Sciences and Applied Research, IJSAR*, 7(7), 2020; 01-13.
36. Maweu, J. M. 2020. “Fake Elections”? Cyber Propaganda, Disinformation and the 2017 General Elections in Kenya, *African Journalism Studies*, DOI: 10.1080/23743670.2020.1719858 *African Journalism Studies* 40:4, 62-76, ISSN: 2374-3670 (Print) 2374-3689 Journal homepage: <https://www.tandfonline.com/loi/recq21>.
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38. Muriuki, W. 2020. “Shinran” in *The Encyclopedia of Philosophy of Religion*, edited by Stewart Goetz and Charles Taliaferro, forthcoming, John Wiley and Sons.
39. Oduor, R.M.J. 2020. “Kenya beyond Liberal Democracy: The Rationale for an Ethnically-Based Federation”. *The Elephant*, 14th August. <https://www.theelephant.info/ideas/2020/08/14/kenya-beyond-liberal-democracy-the-rationale-for-an-ethnically-based-federation/>
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41. Iribe Mwangi (2020) “A River from Rivulets? A Study of Sheng vis-à-vis Indigenous Kenyan Languages and Modern Technology.” *Asian Journal of African Studies (AJAS)*, Hankuk University of Foreign Studies. ISSN 2466 - 1821. Vol. 49, pp 25-46, August 2020.
42. Amiri Swaleh (2020) ‘Ujenzi wa Ujitambuzinafsi Hasi katika Bunilizi za Omar Babu’ in *Mwanga wa Lugha*, Vol 5, Iss. 1, April 2020. pp 57-70.
43. Amiri Swaleh (2020) ‘The Impact of Feudalism and Racialism on The Construction of Self- and Gender Identities in M.S. Mohamed’s Kiu and Nyota ya Rehema’ katika *Asian Journal of African Studies*, Vol. 47, Feb. 2020.
44. Amiri Swaleh (2020) ‘Mother Tongue as Repository of Culture and Identity: Sampling Classic Kiswahili Poetry’, in *Languages Matter for Development, Peace Building and Reconciliation*, Kakamega, MMUST, Feb., 2020. Uk. 70-85.



45. Rayya Timammy (2020) “*Usaviri wa Familia ya Kisasa katika Fasibi ya Watoto Nchini Kenya*” Mwanga wa Lugha Journal of Moi University, Vol 5 No. 1 April 2020 Pp.185-194.
46. Rayya Timammy (2020) “*Uchanganuzi wa Toni katika Ushairi wa Kithaka wa Mberia*” Mwanga wa Lugha – Journal of Moi University, Vol 5 No. 1 April 2020 Pp 195-211.
47. Rayya Timammy (2020) “Africa Images in Kithaka wa Mberia’s Poetry” Asian Journal of African Studies Vol. 49 August 2020 Pp 3-28.
48. Rayya Timammy (2020) “*Tamathali za Usemi na Taswira katika Utenzi wa Ukimwi ni Zimwi*” in Mwanga wa Lugha Journal of Moi University, Vol 5 No. 2, Sept 2020, Pp15-32.
49. Ayub Mukhwana (2020) “*Athari Za Ulumbilugha Miongoni mwa Chokoraa*” in Mwanga wa Lugha Journal of Moi University, Vol 5 No. 2, Sept 2020, Pp. 151 - 164.
50. Ayub Mukhwana (2020) “An Optimality Theory Account of the Phonological Processes Involved In Hiatus Resolution in the Olutura Dialect of Luyia” in The University of Nairobi Journal of Language and Linguistics. vol.8 (2020), Pp 27-60.
51. Ayub Mukhwana (2020) “*Historia Mapokeo Iaminive?*” Book chapter in Mosol Kandagor (Mhariri) Kiswahili Na Maendeleo Ya Afrika Mashariki,
52. Ayub Mukhwana (2020) “*Michakato Mipya ya Kuenza Dini Kiutandawazi na Athari zake katika Mustakabali wa Maenezi ya Kiswahili*”, Book chapter in Mwenda Mukuthuria na Mosol Kandagor (Wahariri) Lugha ya Kiswahili: Utafiti na Maendeleo yake.
53. Kineene wa Mutiso (2020) “Africa Images in Kithaka wa Mberia’s Poetry.” Asian Journal of African Studies. Vol. 49, 113-138. (With Ongarora, S, Timmamy, R. & Michira, J.)
54. Kineene wa Mutiso (2020) “*Uchanganuzi wa Toni Katika Ushairi wa Kithaka wa Mberia.*” Mwanga wa Lugha. Journal of Moi University, Vol. 5, No. 1., 195-211. (With Michira, J, Timmamy, R. & Ongarora, S.)
55. Zaja Omboga (2020) “Configuring Thematic Tropes in Kiswahili Literature: Translating Mariama Ba’s So Long a Letter as Barua Ndefu Kama Hii” in Mwanga wa Lugha, Journal of Moi University, Vol 5 No. 2, Sept 2020, Pages 129-150
56. Zaja Omboga (2020) “Proverbs and Enculturation: The Gender Convergence of Kiswahili and Ekegusii Proverbs” in Mwanga wa Lugha Journal of Moi University, Vol 5 No. 1, Apr 2020, Pages 19-36
57. Zaja Omboga (2020) “*Usaviri wa Familia ya Kisasa katika Fasibi ya Watoto Nchini Kenya*”, in Mwanga wa Lugha Journal of Moi University, Vol 5 No. 1, April 2020,, Pages 185-194
58. Mary Ndung’u (2020) *Mwenge wa Kiswahili: Kitabu cha Mazoezi kwa Shule za Msingi*. One Planet. Nairobi. (With Matei)
59. James Michira (2020) “*Tafsiri ya Chata za Huduma: Nafasi ya Kukuza Msamiati na Istilabi za Kiswahili.*” Mwanga wa Lugha. Journal of Moi University, Vol. 5, No. 2; 109 – 128. (With Indindi, H.)
60. James Michira (2020) “Africa Images in Kithaka wa Mberia’s Poetry.” Asian Journal of African Studies. Vol. 49, 113-138. (With Ongarora, Timmamy, R. & Mutiso, K.)
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62. James Michira (2020) “*Kiswahili kama Lugha Rasmi ya Kenya: Majukumu, Changamoto na Mapendekezo*” in Arege, T., Wafula, R., Matundura, E., Kadurenge, B., Matei, A. & Kandagor, M. (2020). Lugha: Utamaduni na Katiba, Nairobi: Access Publishers Ltd. pp. 185 – 196.
63. Jefwa Mweri (2020) Sustainable Development Goals: Reaching People through Their Mother Tongue. Linguistics and Literature Studies 8(1): 14-25, www.hrpub.org › download › LLS3-19314435. DOI: 10.13189/lls.2020.080103
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69. Ephraim Wahome and Joan Gathungu (2020)- Redefining Sustainability in the Conservation and Promotion of the Cultural Heritage Tourism Product in Kenya. In Tourism Destination Management. Emeral Publishing. Pp. 257-271
70. Mugwima B. Njuguna, Ephraim W. Wahome and Anne Marie Deisser (2020): The Role of the National Construction Authority in the Conservation of Vernacular Architectural Heritage. East African Journal of Engineering Vol 2 No 1 (2020): 23-32

### Book and Book Chapters Written by Members of Staff

1. Oluoko-Odingo, A.A. 2020. Smallholder Innovations towards Food Security in Peri-urban Areas of Africa. In: *Rural-Urban Linkages and Sustainable Development Case Studies from Africa* [Farai Kapfudzaruwa, Shogo Kudo, Kanako Matsuyama, Doreen Ingosan Allasiw (eds)], Spears Media Press LLC, ISBN: 9781942876588 (Paperback).
2. Moronge J. (2020) 'Spatial (Industrial) Organisation of the Kenyan Coast' in Onditi F. and Yates D. (2020) *Illusions of Location Theory: Consequences for Blue Economy in Africa*, Vernon Press, USA.
3. Shadrack Kithiia (2020). Bridging the Coastal-Hinterland Divide in Eastern Africa Book chapter in *Illusions of Location Theory Consequences for Blue Economy in Africa* (2020).
4. Oduor, R.M.J. 2020. *Introduction to Ethics*, Second Edition. Nairobi: Sophia Publications.
5. Omari H.K. *et al* 2020. *Arabic for All*. Nairobi: Chance Publishers.
6. Wachege, P. 2020. *Jesus Christ as "Muthamaki"* (Ideal Elder), 2<sup>nd</sup> Edition. Nairobi: Phoenix Publishers.
7. Mwenda Mbatiah (2020) Book Chapter: "Swahili Literature as a Minority Discourse in African Literatures" in Ojaide & J. Ashuntantang Routledge *Handbook of Minority Discourses in African Literature*. London: Routledge.

### Staff Presentations at Conferences/Seminars 2020

1. Jennifer Muchiri (2020). Re-imagining and Restaging Cultural Identity in Ngugi wa Thiong'o's Kenda Muiyuru.
2. Alina Rinkanya (2020). The problems of Kenyan female youth in the works of Moraa Gitaa.
3. Julius Kanyari Mwangi (2020). The Eastern Africa and the Caribbean space and identities: rethinking the African presence in the Caribbean
4. Sam Dennis Otieno Narrating East African Oceanic Encounters in Yvonne Owuor's The Dragonfly Sea (2020)
5. Makau Kitata (2020). Family Matters: Intersections of Gender, Ethnicity and Nationhood in Binyavanga Wainaina's, One Day I will write about this Place.

6. Joseph Muleka (2020). Inseparability of Freud's Psychoanalysis in African Literature: Interpreting East African Drama through Tripartite Psyche
7. Simon Peter Otieno (2020). Down-Top Approach to Dealing with Pandemics: Forgotten Lessons of Theatre and Film for Development in Kenya
8. Miriam Musonye (2020). Power Performance in the Digital Space: An Analysis of Kenyan Online Parody
9. Judith Jefwa (2020). The Blogger and the Reader as Co-creators of Works of Fiction
10. Kimingichi Wabende (2020). Performing Narratives in Digital Space during Covid-19 Pandemic
11. Prof. DH Kiiru (2020). "Faith and Healing in the Bible." Conference Paper, College of Humanities and Social Sciences (CHSS) Third Annual International Multi-Disciplinary Conference, University of Nairobi, 14th –16th October.
12. Prof. Ciarunji Chesaina (2020). "Kenyan Oral Literature Revisited"
13. Prof. Henry Indangasi (2020). "The Department of Literature at 50: The Facts and the Fabrications", paper submitted at the UoN@50 Department of Literature webinar (November)
14. Owuor, S (2020): "Urban growth and food security in Nairobi, Kenya". Makadara Sub-County Food and Farm Market Community Urban Studio, Nairobi, Kenya, February 28, 2020
15. Owuor, S (2020): "Housing in Nairobi". IGLUS Training Workshop, Aga Khan University, Nairobi, Kenya, February 18, 2020.
16. Oluoko-Odingo, A.A. 2020. Gender mainstreaming in Climate risk reduction for Sustainable food and nutrition security in Africa. 14th KMS International Conference on Meteorological Research, Applications and Services, Lake Naivasha Resort, Nakuru County, Wednesday 21 - Friday 23 October 2020.
17. Oluoko-Odingo, A.A. 2020. Gender concerns of Climate risks and their implications for Livelihood sustainability. African Women Studies Centre Conference, University Research Week, 14-16 October 2020.
18. Oluoko-Odingo, A.A. 2020. Harnessing Technology for improved Gender Equality and Human security in Kenya. Global and Local Response to Emerging Issues in the Third Decade of the Millennium: Opportunities and Threats, University of Nairobi Research Week, Date: 14th – 16th October, 2020
19. 2020a Shah. P., Coronavirus pandemic and the girl child: The case of the Maasai Women in Kenya. Paper presented at the 3rd Annual Status of African Women Conference, UoN, 14th – 16th October.
20. 2020b Shah. P., Implementing Kenya's 2012 Wildlife Policy through The Constitution: Engagement and resilience. Paper presented at the 3rd Annual Nairobi International Multidisciplinary Conference (College of Humanities and Social Sciences), UoN, 14th – 16th October.
21. Francis Mwaura 6th June 2020; Evaluation of biodiversity articles in Vol 1 of the EAJSTI. Second Editorial Board Meeting of the East African Journal of Science, Technology and Innovation (EAJSTI)
22. Sam Owour and Teresa Mbatia 4th to 5th July 2020: Contemporary Issues in Food and Food Security Maputo, Mozambique
23. Ochola, E.A (2020). Global Communication Summit, Houston, Texas. Social media Communication, 27-28th Feb.
24. Hashim, H. 2020. Virtual meeting on the Launch of Alternative Theological Narratives to Prevent/Counter Religious Extremism and Radicalisation", African Council of Religious Leaders- Religions for Peace, Nairobi, 24th September 2020.
25. Mbugua, K. 2020: Dreams and Dreaming: Evolved Defense Mechanisms or Spandrels of Sleep? Paper presented at the Dreams and Dreaming Conference, Makerere University, Uganda, 27th-28th February 2020.

26. Mbugua, K. 2020. "Sex –Selection for Family Balancing Reconsidered", Fourth Bioethics Society of Kenya Annual Conference – Contemporary Issues in Bioethics, Swiss Lenana Mount Hotel, Nairobi, Kenya, 12-13 March 2020.
27. Maweu, J.M. 2020. "The Propaganda Model and Journalistic agency in Kenya Today: Ethnicity as a key sixth Filter? Paper presented at the International Communication Association (ICA) annual conference (Online), organized by Gold Coast, Australia, 21-25 May 2020.
28. Maweu, J.M. 2020. "Mainstreaming Elite Ideology through a Handshake: Media, Politics and Propaganda in the Building Bridges Initiative in Kenya". Paper presented at the annual IAMCR conference (Online) organized by Tampere University, Tampere, Finland 12-17 July 2020.
29. Musili T. 2020. Fourth Bioethics Society of Kenya Annual Conference – Contemporary Issues in Bioethics, Swiss Lenana Mount Hotel, Nairobi, Kenya, 12-13 March 2020
30. Musili, T. 2020. 10th ASET Annual Conference – Who do you say I am? Christology in Africa, Africa International University, Nairobi, Kenya, 6-7 March 2020.
31. Nyabul, P. "The Significance of Dreams and Dreaming Among the Luo People of Kenya". Paper presented at the Dreams and Dreaming Conference: African Perspectives, Makerere University, Uganda, 27th - 28th February, 2020
32. Oduor, R.M.J. 2020. "The Fourth Industrial Revolution: Universal Design, Affordability, Cultural Identity, and Ethical Orientation". Paper presented at the Roundtable on "African Studies and 4IR: in Search of an Appropriate Analytical Approach" organised online by the University of Johannesburg's Institute for Intelligent Systems (IIS), in collaboration with the Johannesburg Institute of Advanced Study (JIAS) on 7th December, 2020.
33. Owakah, F. 2020. General Assembly & Annual Conference of the Association of Human Rights Institutes on the Future of Human Rights: Socio-Economic Rights, Equality and Development: <https://ahri2020.eventbrite.co.ke> 4-5 September 2020
34. Owakah, F. 2020. Information for Development (I4D), Governance, Leadership and Ethics in Institutions of Higher Learning (IHL), University of Nairobi, Nairobi, 12th – 14th October 2020:
35. Owakah, F and Musili, T. 2020. "Ideology, Politics and Human Rights in Africa: Conversations and Reflections on the Future of Human Rights in Africa Post COVID-19. In the Third Annual International Multi-Disciplinary Conference: Global and Local Response to Emerging Issues in the Third Decade of the Millennium: Opportunities and Threats, 14th – 16th October, 2020.
36. Presented a paper titled "Andrew Kailembo: an East African at the ICFTU" at the "East Africa Global Lives" online Workshop, 11 December 2020.
37. Iribe Mwangi (2020) December, Conference: International Webinar "Kiswahili Ulimwenguni" Nairobi.
38. Prisca Jerono (2020) February 1st African Pragmatic Conference at the University of Ghana, Legon; "Aggression and Impoliteness on Kenyan Roads"
39. Mwenda Mbatiah (2020) December, Conference: International Webinar "Kiswahili Ulimwenguni" Nairobi.
40. Rayya Timammy (2020) "Waswahili ni Nani?" Swahili Literary Festival - Identity Politics on the Swahili Coast (6 – 7 March 2020) – Presented a paper on 6 Machi 2020 Swahili Hub.
41. Judy Onyancha (2020) "Uwezeshaji Lugha kama chombo cha Kuimarisha Maendeleo ya Kitaifa: Mfano wa Lugha ya Kiswahili" Presented a paper in a 3rd Annual Nairobi International Multidisciplinary Conference 14th – 16th October, 2020
42. Kineene wa Mutiso (2020) December, Conference: International Webinar "Kiswahili Ulimwenguni" Nairobi.

## Webinars Hosted and Webinar Presentations and Conferences Hosted by the Faculty

1. Department of literature hosted a webinar themed “UoN@50:Conversations on Kenyan Literature and our Being” in November 2020
2. Department of Geography & Environmental Studies hosted local webinar on UON @ 50years on 9th March 2021
3. Department of Geography & Environmental Studies hosted an International webinar on UON @ 50years on 27th April 2021
4. Prof. Irandu. Panelist on Re-imagining tourism and food experience in Kenya post COVID19 at the Interregional Economic Network (IREN) Growth pad Virtual Food Festival 2020, September, 24th-25th, Nairobi.
5. Prof. Irandu, Dr. Martin Marani, Dr. James Moronge. Impact Assessment for Belt & Road Initiative Projects. Organized by International Association of Impact Assessment (IAIA)
6. Dr. John Musingi. Key presenter; Assessing the Fiscal & Social Protection Policies in times of Covid 19, University of Nairobi webinar 23rd April 2020
7. Dr. Martin Marani. Global Manufacturing and Industrialization Conference and Summit. Organized by GMIS Representatives and Deutsche Messe AG
8. Dr. Martin Marani. Effective Project Level Grievance Mechanisms in a Changing Landscape: An Interactive Tool. Hosted by International Association of Impact Assessment (IAIA)
9. Dr. Boniface Wambua. Sustainable urban agriculture in Nairobi and Dar es Salaam. Presentation done to students and staff in Humboldt University Berlin, Germany July 2020
10. Dr. Parita Shah. UON WEE Hub – 20th November 2020. The origin of the grounded theory and its implication on research on women in Africa.
11. Dr. Parita Shah. UON WEE Hub – 16th December 2020- strengthening the generation and use of evidence to advance women’s economic empowerment (WEE) and gender equality in Kenya
12. Dr. Parita Shah. UN webinar - 17th December 2020 - GEO-6 Technical Summary Webinar: How to incorporate the GEO into university curricula
13. Dr. Parita. UN webinar – 3rd December 2020 GEO-6 Technical Summary Webinar: How to incorporate the GEO into university modules
14. Dr. Parita Shah. UN webinar – 6th October 2020 - Future of GEO Consultation webinar #7
15. Dr. Paraita Shah. Times Higher Education in partnership with Desire to Learn -12th August 2020 - Enabling digital transformation in South Africa: staying locally and globally competitive in a new era of digital learning
16. The Department of Library & Information Science Department held a webinar conference on Information for Development, Governance, Leadership and Ethics in Institutions of Higher Education from 12th – 14th October 2020. This was the First Annual Conference on Information Science (FACIS) where academics, professionals, practitioners, scholars, students, organizations and industries deliberated and shared knowledge and experiences
17. The Department of History & Archaeology hosted an International Webinar on “Rethinking African Historical. Social and Cultural Scholarship During and After Covid 19: Challenges and Opportunities, 23rd September 2020
18. International Webinar organized by the Department of History and Archaeology, “UON@50: History of Scholarship Trajectories a Half a Century Later,” 4th November 2020.
19. The Department of Literature hosted the third international annual conference on the Role of Literature in a Global World in October 2020
20. The department of Kiswahili organized and hosted an International Webinar: “Kiswahili Ulimwenguni.” 2nd December 2020

21. Ephraim W. Wahome attended ICOMOS 20th General Assembly, 1st session/20e Assemblée générale de l'ICOMOS, 1ère session – Webinar. 20th ICOMOS General Assembly - ZOOM link for 3 December session and final draft Resolutions/20e AG de l'ICOMOS - Lien ZOOM pour session du 3 décembre et ébauche finale des résolutions
22. Ephraim W. Wahome attended International UoN@50 webinar whose theme is Kiswahili Ulimwenguni (Kiswahili in the Globe) on December 2, 2020 from 2.00 pm.
23. Ephraim W. Wahome attended Literature Webinar- 25th November 2020: UoN @50: Conversations on Kenyan Literature and our Being.
24. Ephraim W. Wahome attended History Webinar: UoN@50: History of Scholarship Trajectories a Half Century on.
25. Ephraim W. Wahome attended ICOMOS Scientific council Webinar: Scientific Council/Conseil scientifique 2020-1: Triennial Scientific Plan Review, Projects, and Collaborations/Révision du plan scientifique triennal, projets et collaborations. Monday 19 October 2020
26. Ephraim W. Wahome attended ICOMOS National Committees Meeting 1 WEBINAR (Outcomes of Regional Discussions) on Thursday 15 October 2020. Topic: Advisory Committee/Conseil consultatif 2020-1: Preparatory Webinar/Webinaire préparatoire
27. Ephraim W. Wahome attended Rethinking African Historical & Cultural Scholarship During and After Covid-19: Challenges and Opportunities. Webinar - September 23, 2020
28. Ephraim W. Wahome attended BSF Project webinar December 15th, 2020

### **New Partnerships, MoUs, Linkages and Collaborations**

1. The Department of Literature signed an MOU with Soka University, Japan.
2. Mwende, J.M. 2020 University of Nairobi-University of Leeds-University of Ghana Research partnership on Interrogating (Gendered) Information Ecosystems in Climate Change Adaptation in rural Ghana and Kenya: a pilot field study
3. Omari, H.K. 2020. “Islamic teachings on Child protection.” Conference Channels of Hope for Child Protection for Uganda Staff and faith leaders World Vision Uganda, 20<sup>th</sup> February 2020.
4. Omari, H.K. 2020. “Curbing child abuse: interfaith perspective, workshop Channels of Hope to Religious leaders (Muslims/Christians) Isiolo c/o World Vision Kenya, 25th Sept 2020
5. Omari, H.K. 2020. Mediation Parents, Students and School administration, workshop Garissa Muslim Centre, 8th February 2020
6. Omari, H.K. 2020. Islam and development paper presented at All Africa Conference of Churches (AACC) Agenda 2063 at AACC Desmond Tutu Conference Centre (DTCC), 19th November 2020,
7. Omari, H.K. 2020. “Preventing Violent Extremism: Islamic perspective, presented at Counter-Narrative Training at international Leadership University Nairobi October 2, 2020
8. Omari, H.K. 2020. “Role of interfaith leaders in countering violent extremism: transformative narratives from a faith perspective: presented at YWCA CVE Forum, 22nd November 2020
9. Mwende, J.M. 2020 University of Nairobi-University of Leeds-University of Ghana Research partnership on Interrogating (Gendered) Information Ecosystems in Climate Change Adaptation in rural Ghana and Kenya: a pilot field study.
10. Muriuki, W., 2020. Nanzan University, Center for International Affairs, and the Faculty of Global Liberal Studies on the tentative theme: “Strengthening Grass-roots Resilience with Multi-cultural, Systems, and Market Thinking in the Post-COVID19 Period.”
11. Mwende, JM. 2020. January 2020-December 2020: Lead researcher in Kenya in the University of Leeds, University of Nairobi and University of Ghana GCRF collaborative research award with Chris Paterson (PI) University of Leeds on Information in Climate Change Adaptation in rural Kenya and Ghana

12. The Department of Kiswahili Collaborated with University of Western Cape (South Africa) in MA Supervision of Simon Mwaniki, “Mashairi: A Surviving Art of the Swahili Muslim Peoples of Lamu Town, Kenya.” (Prof. Tom Olali).
13. The Department of Kiswahili Collaborated Humbolt University, (Germany), Tianjin Normal University (China) in the Publication of Chinese-English-Swahili Grammar Book. (Prof. Tom Olali).
14. The Department of Kiswahili Collaborated with Universitat Rovira i Virgili (Spain) in PhD Supervision of Alicia Waceera Wangeci Ndegwa, “Impact of Technology on Reading Comprehension and Attitude of Kiswahili on Young Learners in Kenya.” (Prof Iribe Mwangi)
15. The Department of Kiswahili Collaborated with The State University of Zanzibar (Zanzibar) in PhD Supervision of Ziada Tajo Ameir, “Ukiushi wa Kimaadili katika Filamu Zilizofasiriwa kwa Lugha ya Kiswahili.” (Prof Iribe Mwangi)

## Achievements

### Scholarship Awards

During 2020, 14 students from the Department of Geography and Environmental Studies were awarded Mitsubishi corporation international scholarships; present were General Manager Mitsubishi corporation international, regional office, DVC AA representing VC, Principal CHSS, Dean Faculty of Arts, Director School of biological Sciences, Dean student’s affairs and Chairman Department of Geography & Environmental Studies



### Graduation

Programme	No. of Graduands
PhD.	3
Masters	129
Postgraduate Diploma	2
Bachelors	688
Diplomas	53
<b>Total</b>	<b>872</b>

## Others

1. Publication of the Nairobi Journal of Literature Number 9 (Special Issue) December 2020
2. Nomination and award of honorary degree to Prof. Micere M. Githae Mugo –Department of Literature
3. Nomination and appointment of Prof. Wanjiku Kabira as Professor Emeritus
4. The department of Geography and Environmental studies Launched departmental Magazine on the achievements of the department since inception as part of UON@50 years celebrations 27th April 2021
5. The Department of Library and Information Science implemented education, training and research programmes in line with the United Nation's (UN) Sustainable Development Goals (SDGs), Government of Kenya's Vision 2030 policy and classified under Social Sciences, Journalism and Information in the UNESCO International Standards Classification of Education in the detailed field of Library, Information and Archival Studies (ISCED, 2011: 18).

## Consultancies



*The Department of Kiswahili lead in the translation of the Standing Orders of the National Assembly (see photos)*

The department also lead in translation of documents for the Communication Authority of Kenya (CA).

## Corporate and Community Outreach Activities

1. Faculty of Arts Performing arts students entertained guests during the UoN@50 celebrations
2. Members of staff from the Department of Literature consistently write for the Saturday Nation on pertinent issues related to Literature and the arts
3. Prof. George was appointed an international observer in the negotiation between Ethiopia and Egypt on the Grand Ethiopian Renaissance Dam. The appointment was done by African Union to maintain peace between Ethiopia, Egypt and Sudan
4. Makadara Sub-County Food and Farm Market Community Urban Studio, Nairobi, Kenya. Organized by Prof. Sam Owuor
5. Dr. Alice Odingo, Chairperson, Gender Mainstreaming Committee and has been training staff in the six colleges of UON to ensure a gender responsive working environment from management to units level



6. The Department represented University of Nairobi in international wetlands day in sabaki estuary where 10,000 mangrove tree seedlings were planting as part of community service. Dr. Wambua, chairman of the department, took part in this important international day
7. The Department in partnership with Mitsubishi International corporation advertised and selected 14 needy and bright students who qualified for scholarship support
8. Prof. George Krhoda has been involved in Mentorship Programme under international support Network for African Development (ISNAD-Africa): Hydrological Society of Kenya African Ministries of Water Council, Abuja, Nigeria ADS Nyanza Company Ltd
9. Dr. Stellah Muhovi was involved in Transformative Pilot action on Funds mobilization and community engagement-Umande cooperative Laikipia County
10. Dr. John Musingi was involved in Covid-19 Donations of Sanitizers and wash Tanks in Machakos under Masinga Professionals Association and he was also involved in Development of Kuku Group Ranch Land Use Plan which benefits the community bordering the ranch
11. Dr. S. Kithiia, Chairman of three (3) School Board Management (BOM)-Nguumo Girls High School, Kibwezi, Makindu Girls Secondary School and Synumile Secondary school-Makindu.
12. Dr. F. Mwaura Appointment by the East African Science & Technology Commission (EASTCO) to the Editorial Board of East African Journal of Science Technology and Innovation.
13. Prof E. Irandu sponsored two needy Secondary school pupils in Tharaka Constituency, Tharaka Nithi County from Form 1-Form IV with effect from January 2015 to November 2018.
14. Dr. B. Wambua, BOM chairman, Kasikeu Boy High School and a BOM member at Nduluni Secondary School. He further;
  - a) Sponsored several students in secondary schools
  - b) Chairman NGUMA welfare society
  - c) Chairman, Bahati welfare Group
15. Dr. J Nyangaga, BOM member, Itierio High school
16. Prof. Elias Ayiemba, Chairman, Education Council, Nairobi Central SDA Church and an active Church Elder, Nairobi Central SDA Church
17. Dr. Martin Marani, Continued to support Ndiema, Nanjala Harriet (an orphan), a Form Three student at Friend Muji Secondary School, Admission No. 4322
18. Prof. George Krhoda, Chairman of Resources Mobilisation for Homa Bay County Covid 19 Committee. He is also the:
  - a) Chairman of Homa Bay Water and Sewerage Services Ltd
  - b) Chairman of Kajiado County Water and Sewerage Company Ltd
  - c) Chairman of Homa Bay County Climate Change Steering Committee
  - d) Patron of Hydrological Society of Kenya
19. Prof. Francis Mwaura, Technical advisor for Uhodari community self-help group in Naivasha
20. Dr. Stellah Mukhovi Member, department of geography welfare committee
21. Dr. Kennedy Omoke Member of Mwekeima Self-help Group, Mwamugosii Self Help Group and Kenyan secondary BOM
22. Prof. Samuel Owuor Member of East Africa Representative, Commonwealth Geographical Bureau; a member of Maasai Mara Science and Development Initiative; and the Chairman, Department of Geography welfare committee
23. Prof. Tom Olali (2020) International Christian Centre Nativity Play (Directed and wrote it)....”Attention Covid-19: The King is Born” available on YouTube. (Prof. Tom Olali)
24. Ephraim Wahome a Board Member, National Museums of Kenya and an External Examiner, Kenyatta University

## Staff Portfolio

Academic Rank	No. of Staff
<b>Department of Communication Skills</b>	
Assistant Lecturer	1
Lecturer	4
Tutorial Fellow	2
<b>Department of Geography &amp; Environmental Studies</b>	
Professor	2
Associate Professor	3
Senior Lecturer	8
Lecturer	8
Tutorial Fellow	1
<b>Department of History &amp; Archaeology</b>	
Associate Professor	2
Senior Lecturer	5
Lecturer	7
Part-Time Lecturer	3
Tutorial Fellow	2
Professor	1
Associate Professor	7
Senior Lecturer	5
Lecturer	3
Tutorial Fellow	5
<b>Department of Literature</b>	
Professor	4
Associate Professor	3
Senior Lecturer	7
Lecturer	2
Assistant Lecturer	2
Tutorial Fellow	1
<b>Department of Philosophy &amp; Religious Studies</b>	
Professor	1
Associate Professor	4
Senior Lecturer	8
Lecturer	11
<b>Total</b>	<b>112</b>

## Projections

- To have two (2) international colloquia (Department of Literature) and issue the Nairobi Journal of Literature Number 10.
- Increase international linkages with new partners and boost university visibility
- Upscale research activities and look for more research grants to support research and student's scholarships
- Increase the number of grandaunts to one thousand (1000)
- Increase staff publications in reputable Journals
- Attract more foreign students
- To start a communication programme in professional communication.
- Review of all Faculty programmes

## Challenges

- Limited budget allocation
- Low staff establishment, less than 54%
- Inadequate teaching and research facilities
- Restrictions by Covid-19 on staff and students exchange programs
- There is need for aggressive marketing and advertisement of programmes to recruit more students in all programmes and campuses
- There is need for more investment in staff development so as to support the implementation and expansion of academic programmes.

## New Appointment

Appointment of new head of department in the Department of Literature

## International Linkages

The Faculty made significant efforts in striving to be a centre of international repute committed to scholarly excellence developing and strengthening international Partnerships in areas of research, students and staff exchange visits.

In the year 2020, the Faculty continued to nurture formal Memoranda of Understandings with the following institutions and organizations:

Institution	Country
Aarhus University	Denmark
African Studies Centre-Leiden	Netherlands
Centre for Development and Environment, University of Berne	Switzerland
Centre for Training and Integrated Research in Arid and Semi-Arid Lands Development	Kenya/Switzerland
International Space University	France
Justus-Liebig-University-Giessen	Germany
Linköping University	Sweden
Mitsubishi Corporation	Kenya/Japan
The United Nations University	Japan
University of Bordeaux Montaigne	France
University of Cologne	Germany
Makerere University	Uganda
The university of Cape Town	South Africa
University of Fraser Valley	Canada
Humboldt university	German
United Nations University of Tokyo	Japan
University of Salzburg	Austria
Queens university	Canada
Air Bus Defense and Space Limited	Britain
Geoprogress onlus	Italy
University of Copenhagen	Denmark (New)
University of Helsinki	Finland (New)

## Department of Communication Skills and Studies

### Introduction

The Department of Communication Skills and Studies, which houses the Communication skills Course, dates back to 1990s with the advent of the 8-4-4 system of education. The Communication Skills project was established as result of an agreement between the Government of Britain (ODA) and Kenya for the setting up of a Communication Skills Course for the 8-4-4 students who were joining the National Universities for the academic year 1990-1991.

Communication Skills and Studies Department has since then held the sole responsibility of managing and administering the Communication Skills program. Communication skills is the single most important discipline which cuts across all subject areas. The Department therefore plays a very pivotal role of enhancing the communicative competence of students by teaching Communication Skills to all Students taking various

courses in the University. It is staffed with highly qualified staff trained in English for Academic purposes, Communication Skills, General and Applied Linguistics. The British Council sponsored some members of staff in highly recognized British Universities amongst them were University of Leeds, Lancaster University, university of Reading, Birmingham: while others were highly trained by our prestigious local Universities.

The Communication Skills and Studies Department has a significant role to play in the university's organizational framework. These programs intersect with the UON's overall mission of preparing students for academic pursuits, professional development, enhanced personal lives, and responsible global citizenship. At the center of its focus is the enhancement of student's academic and professional competence in communication in a multicultural setting.

The curriculum for Communication Skills has been subjected to regular review to reflect an inter-disciplinary and market orientation in keeping with the needs of the various university students immediate academic needs and the job market The Department therefore has links with all Schools/Faculties in UoN. e.g. Science, Agriculture, Engineering, Architecture, Design, Journalism and Media studies, Arts, Education, Computer Science and others.

It is a course offered to first year students and yet its impact is felt even after students have left the university to join the job market.

Among its much strength as highlighted in the strategic plan is its focus on the development of the communicative skills of students as part of scholarly and professional competence. The course focuses on competency in writing research papers and documenting sources, Academic, Professional and technical writing skills

## Programme Offered

Currently the Department offers only one important and compulsory course: Communication Skills to all first year students. However, with the dynamic Job market it has become necessary for the department to broaden its service by preparing to offer Communication Courses that go beyond academics; hence Professional Communication Studies' course is going to be launched soon.

## Students Enrolled

Students enroll for Communication Skills Course at only the undergraduate level in 1<sup>st</sup> Year. International Students who register in all faculties automatically do Communication Skills.

## Research Interests

Research interests are mainly in the area of Applied Linguistics and communication

## Staff Portfolio

Designation	No. of Staff
Lecturers	4
Assistant Lecturer	1
Tutorial Fellow	2

## Number of Graduands

All first years who progress to fourth year for graduation?

## Papers Presented at Conferences/Workshops

1. 22<sup>nd</sup> February 2019 Dr Nobert O. Basweti attended the *International Mother Language Day (IMLD) Conference 2019 (20-22<sup>nd</sup> February 2019)* at Kenyatta University, Kitui Campus, Kenya, and presented a paper on: 'The pragma-dialectical role of mother language in reconciling traditional medicine and conventional medicine in medical disputes in the Gusii medical consultation involving patients with non-communicable conditions'.
2. 1<sup>st</sup> November 2018 Dr Nobert O. Basweti attended the *4th International Conference of the American Pragmatic Association (AMPR44)* at University at Albany, State University of New York, Albany, USA between 1st to 3rd November 2018 and presented my paper 'The pragma-dialectics of doctor-patient consultations: 'The nexus between traditional Gusii illness belief system vis a vis contemporary medicine'
3. 3<sup>rd</sup> July 2018 Dr Nobert O. Basweti attended the *International Congress of Linguists (ICL20)* at Cape Town, South Africa and presented a paper 'Communication accommodation and appraisal in strategic manoeuvring in doctor-Patient consultations: a pragma-dialectical account'

Author	Conference	Theme	Date
Ochola, E.A	Global Communication Summit, Houston, Texas.	Social media Communication	27-28th Feb 2020
Ochola, E.A & Omollo, D.A.	The Second International Mother Language Day Conference, 2020	Mother language and gender	19-21 <sup>st</sup> August 2019
Omangi, H.G.	The Second International Mother Language Day Conference, 2020	Mother languages and peace-building	19-21 <sup>st</sup> August 2019

## Corporate and Community Social Responsibilities

1. Chairing and facilitating monthly awareness sessions at A.I.C Milimani church (Dr. Omollo).
2. Mentorship of youth on career development at Mbagathi Secondary School and All Saints Cathedral (M. Okebe)
3. Online programme facilitator and lead discussant in a seminar on challenges facing adolescents and youth during COVID19 Lockdown (E. Ochola)
4. Career planning online programme in Nairobi East SDA Church (E. Ochola)
  - a) Communication skills for high school and churches.
  - b) Communication skills for county representatives.

## Strategic Projections

To start a communication programme in professional communication

## Major Achievements in 2020

Taught and examined over 3000 first year students **online** successfully.

# Department of History and Archaeology

## Introduction

The Department of History is one of the oldest departments in the University. It was established in 1956 under the aegis of the then Royal Technical College which would become the University of Nairobi in 1970. The Department has since expanded to its present strength of highly trained and internationally recognized members of academic staff, with diverse research interests including history of labour movements, decolonization, social history of modern medicine, statecraft, education and social change as well as archaeology of the African littoral and hinterland.

Besides History and Archaeology programmes, the Department offers Conflict and Peace Studies as well as Hospitality Management, Travel and Tourism Management. These programmes go to emphasize the role of history as a service discipline to operational aspects. Additionally, the Department offers diploma programmes in Cultural Tourism and Conflict and Peace studies as well as postgraduate diploma in Armed Conflict and Peace Studies. The Diploma and Certificate programmes are, currently, under review to determine their continued relevance.

## Programmes and Services Offered

- |  |  |
|--|--|
| i) PhD in Archaeology                        | vii) BA Archaeology                        |
| ii) PhD in History                           | viii) BA History                           |
| iii) PhD in Armed Conflict and Peace Studies | ix) BA Conflict and Peace Studies          |
| iv) MA in Archaeology                        | x) BA Tourism                              |
| v) MA in History                             | xi) Diploma in Cultural Tourism            |
| vi) MA in Armed Conflict and Peace Studies   | xii) Diploma in Conflict and Peace Studies |

## Strategic Issues

1. Renewal of employment contracts for two (2) tutorial fellows (Mr. David Masika and Mr. Justus Ondigi) to cater for shortage of staff – 17<sup>th</sup> November, 2020.
2. Curriculum review – Plan to review all programmes in 2021.

## Major Achievements in the Year 2020

1. The Department hosted an International Webinar on “Rethinking African Historical. Social and Cultural Scholarship During and After Covid 19: Challenges and Opportunities, 23<sup>rd</sup> September 2020
2. The Department hosted an international Webinar on “UoN@50: History of Scholarship Trajectories a Half Century on”. 4<sup>th</sup> November 2020.
3. MA candidates successfully defended their projects papers. 19<sup>th</sup> November 2020 and 3<sup>rd</sup> December 2020.
4. PhD student (Mr. Simon ..... ) presented a concept paper entitled:
5. The Department hosted two research affiliates

## Staff Portfolio

Designation	No. of Staff
Associate Professor	2
Senior Lecturer	5
Lecturer	7
Tutorial Fellow	2
Part-Time Lecturer	3

## Publications

- Misigo, H.A (2020) Gachihi, M.W. Gasana, G.J. “Ending Impunity for Gender Crimes: Access to Justice for Violence Against Women and its Contribution to Sustainable Peace building in Rwanda”.
- Gachihi, M.W (2020) “Profiles in Courage: Pioneer Women in Kenya’s Freedom Struggle”
- Wanyoike, M.W. Government-Missions partnership in African education in Nairobi, 1950 -1963 – At final stage.
- Wanyoike, M.W. “The Paradox of Educational Reforms in Kenya, 1985-2009” – On-going.
- Wanyoike, M.W. “Government Policy on Funding of African Education in Colonial Kenya: A Critical Analysis” – On-going
- Misigo, H.A. “History of Curriculum Changes in Kenya” – On-going
- Gona, M. G. “Wahu Kaara”: A Biography writing in progress.
- Wafula, G.K. (2020) “Cultural heritage conservation and public benefits: effectiveness of Kenya’s legal and administrative framework”, in Peters, R., den Boer, I.L.F., Johnson, J.S. and Pancaldo, S. (eds.), *Heritage Conservation and Social Engagement*. London: UCL Press, pp. 125-140.

## Department of Linguistics and Languages

### Introduction

The Department of Linguistics and Languages offers both Bachelor of Arts and Master of Arts programmes. It services the Bachelor of Education programme at the College of Education and External Studies, Kikuyu Campus. It also has students registered for PhD degree.

### Programmes and Services Offered

The BA. programmes are in Linguistics and English, Intercultural German Studies, Korean Studies, Arabic Studies, Chinese and Language and Communication. The Department has three M.A. programmes. These are MA. in Arabic Studies, MA. in Linguistics and M.A. in German Studies. All these show how dynamic the department is MA. in Linguistics has full-time and part-time programmes. The Department also offers PhD. studies in these three areas. The MA. and PhD. in Linguistics programmes give students the opportunity to conduct research on various aspects of languages spoken in Kenya and in other parts of the world. Currently, the Department also offers a Certificate Course in Portuguese Language and Culture.

### Strategic Issues

The Department is looking for ways to increase research on and teach mother languages in Kenya. The Department is also looking for ways of increasing the number of foreign languages on offer.

## Major Achievements in the Year 2020

The Department of Linguistics and Languages Celebrated the International Mother Language Day on Friday February 21, 2020. The theme of the Day was 'Preserving Linguistic Diversity and Promoting Multilingualism to Support Sustainable Development Goals: The Beauty of Mother-Language'

One member of the Department participated in training Class 7, Class 8, Form 1 and Form 2 school teachers on how to use Inquiry Based Learning in teaching English. The Project was called School Based Teacher Support System. It was done under Teachers Service Commission and was funded by the World Bank.

The Department published Volume 8 of The University of Nairobi Journal of Linguistics and Languages in October, 2020.

## Corporate and Community Outreach Activities

1. One member of the Department participated in training Class 7, Class 8, Form 1 and Form 2 school teachers on how to use Inquiry Based Learning in teaching English. The Project was called School Based Teacher Support System. It was done under Teachers Service Commission and was funded by the World Bank.



*Prof. Jane Oduor training secondary and primary school teachers of English to used Inquiry Based Learning (IBL) in teaching English at Eregi Teachers' College in Kakamega County.*





2. Prof. Kithaka wa Mberia receives a gift from the President of the Hankuk University of Foreign Studies (South Korea), in Chul Kim, after teaching in that University for two years.



3. Prof Kithaka wa Mberia's Publication entitled Mvumo wa Helikopta

4. Members of the Department of Linguistics and Languages (P), Department of Kiswahili and the Sub-Department of French the 1<sup>st</sup> African Pragmatics Conference at the University of Ghana, Legon in Ghana in February, 2020. From left, they are Prof. Jane Oduor, Ms. Caroline Mutai, Prof. Kithaka wa Mberia, Dr Zipporah Otiso, Prof. Helga Schroeder and Dr Prisca Jerono.



## Projections

The Department will look for partners to work with in an effort to increase research on and teach mother languages in Kenya. The Department is also looking for ways of increasing the number of foreign languages on offer through partnerships.

## Staff Portfolio

The table below captures the numbers of the academic and non-academic staff of the Department.

Designation	No. of Staff
Full Professor	1
Associate Professor	2
Senior Lecturers	3
Lecturers	16
Assistant Lecturers	1
Tutorial Fellows	3
Secretary	1
<b>Total</b>	<b>27</b>

## International Students

The department admitted international students to take MA in German Studies and MA in Linguistics.

## International Links and Collaborations

1. The department (through the University) has a MoU with DAAD where students from various African countries are sponsored biannually to take MA. in Intercultural German Studies.
2. The department also has a MoU with Bible Translation and Literacy (BTL), Kenya. In the last three consecutive years the Department has organized International Mother Language Day celebrations jointly with BTL, East Africa.
3. The department also has a MoU with Korea Foundation (KF). The latter sent a visiting lecturer, Ms. Yuhjin Park, to teach Korean language to Korean Studies students.
4. The department also has a MoU with Camoes Institute. The latter sent a visiting lecturer, Ms. Ana Alfaiate, to teach Portuguese language to students at the University of Nairobi.

## Publications and Workshops

### Journals

Author*	Title	Journal	Date
Prof. Helga Schroeder	The Syntax and Semantics of Clause-chaining in Toposa	Studies in African Linguistics, Vol. 49, pp.60-83	May, 2020
Samwel Komenda, Jane A.N. Oduor and Prisca Jerono	Speaker Age-Related Effects on the Intonation of Simple Declarative Paratones in Ekegusii	University of Nairobi Journal of Linguistics and Languages, Vol. 8(2020), pp. 117-135	October, 2020
Sussy Khaadi Nandama, Komenda, Jane A. N. Oduor and P. Iribe Mwangi	The Tonal Patterns of Nouns in Isolation in the Lwisukha Dialect of Luyia	University of Nairobi Journal of Linguistics and Languages, Vol. 8(2020), pp. -83	October, 2020

## Conferences Attended

Author(s)	Article Title	Date	Name	Location
Helga Schroeder	A pragmatic view on clause linkages in Toposa, an Eastern Nilotic language of South Sudan	February, 2020	AfrPrag	University of Ghana
Zipporah Otiso	The “welcome” and “unwelcome” meanings of Madam as an address term in Kenyan English usage.	February, 2020	AfrPrag	University of Ghana
Zipporah Otiso	Translating from English into Ekegusii in Radio News and Advertisements	February, 2020	IMLD	MMUST, Kenya
Jane Oduor	The Interface Between Pragmatics and Prosody in Dholuo	February, 2020	AfrPrag	University of Ghana
Jane Oduor	Language documentation: What it is and how to apply for an Endangered Language Documentation Programme (ELDP) grant	February, 2020	IMLD	MMUST, Kenya
Kithaka wa Mberia	Exaggeration as Source of Humour	February, 2020	AfrPrag	University of Ghana
Alfred Buregeya	Corpus Linguistics for Researching the Indigenous mother tongues of Africa	February, 2020	IMLD	MMUST, Kenya
Ana Alfaiate	The Global Interpreter - The Interpreter as a facilitator in Refugees’ Integration in New Societies	February, 2020	IMLD	University of Nairobi, Kenya
Yuhjin Park	Asian Cultural Community in Africa	June 2020		UoN (Online)

## Conferences Held

Conference	Theme	Date
Celebrating International Mother Language Day	Preserving Linguistic Diversity and Promoting Multilingualism to Support Sustainable Development Goals: The Beauty of Mother-Language	February 21, 2020

## Sub-Department of French

### Introduction

The teaching of French at the University of Nairobi commenced at the department of Literature in the 1960s when the University was still a constituent college of the University of East Africa. The objective then was to give students of literature direct access to the rich literature of the French-Speaking Africa. The need was later felt to create an academically independent unit, the Sub-Department of French, which expanded its offerings to cover not just the French language and literature in French but also Culture and Civilisation of the French-Speaking World, Translation involving the French Language and Linguistics of the French Language at both the bachelor's and master's levels. These advanced courses were made possible by the introduction of the teaching of French in many pre-university educational institutions in Kenya. The French Beginners' full degree courses were, therefore, progressively scrapped.

### Programs and Services Offered

1. BA French
2. BEd. French (Negotiations continued with the school of Education for its revival)
3. Certificate Course in French: Tremendous interest shown from the university community and the public at large. The offer, however, remained in abeyance as clarity continued to be sought on a number of certificate course related matters.
4. Translation Services: The Sub-Department continued with the provision, to the University and the general public, of translation services involving the French language
5. IT Services: The technologist of the Sub-Department played a pivotal role in providing, to the Faculty of Arts, the College of Humanities and Social Sciences the IT services and training made necessary by the COVID 19 situation.

### Strategic Issues

1. To continue to seek to be listed on the KUCCPS list for more visibility and publicity
2. To work on reviving the French Bed program
3. To continue to pursue membership of the AUF (Association of French-Speaking Universities) for the University as a whole to take advantage of the many and huge benefits that it has to offer
4. To look for ways and means of offering French classes within the framework of ParisTech-UON agreement.
5. To work on hosting a language assistant from France
6. To organise online interaction between students of the Sub-Department and students from French-speaking countries.

### Major Achievements

1. A student of the Sub-Department represented Kenya in an AUF organised international interuniversity debate in French, having been declared the winner at the country level.
2. Two students who took Sub-Department of French courses as part of their bachelor's degree programs, graduated with First Class Honours degrees.
3. Smooth shift from face to face to online operations.
4. Contribution to the management of and participation in the 2020 annual conference of the Department of Literature
5. Two members of the academic staff settled on PhD research topics and made tremendous progress in developing their proposals

## Corporate and Community Outreach Activities

1. Contribution to and participation in the donation of clothes and foodstuffs to Karai Children's Home in Kikuyu town - M. Nginye.
2. Attended to various duties as an official of a Staff Welfare Association - M. Nginye.
3. Community financial empowerment through network marketing - B. Mwenesi.
4. Part of management of a school alumni association for mutual support and support to the school - B. Mwenesi.
5. Attended to various duties as an official of an extended family welfare association - B. Mwenesi
6. Contributed to the promotion of organic farming as a member and administrator of an East African farmers' group - B. Mwenesi

## Staff Portfolio

Designation	No. of Staff
Lecturer	3
Tutorial Fellow	2
Librarian/Translator Grade DEF	1
Technologist Grade ABC	1

## Projections

1. To revive Bed French for the 2021/2022 intake
2. To appear on the KCCPS list before the end of the academic year 2020/2021
3. To have the AUF membership application signed and submitted before the end of the year 2021
4. To work for the operationalisation within the year 2021 of the ParisTech/UON agreement

## Other Activities

Contribution to/participation in academic activities

### i) Conferences

- a) 1<sup>st</sup> African Pragmatics Conference – C. Mutai presented paper and joined association
- b) 2<sup>nd</sup> African Pragmatics Conference – C. Mutai Secretary to organising committee
- c) Kenya 2020 Mother Language Day Celebration and Conference- B. Mwenesi presented paper

### ii) Webinars

Participation:

- a) French Embassy sponsored workshops on Online Teaching of French as a Foreign Language - B. Mwenesi, C. Oyugi
- b) Eastern African Literatures in the 21<sup>st</sup> Century: Achievements, Challenges, Perspectives - C. Oyugi contributed to its organization and co-chaired a session while B. Mwenesi presented a paper and chaired a session
- c) PhD Findings of Dr. Ojwang of IAGAS - B. Mwenesi
- d) The Trends in Higher Education Pedagogy - B. Mwenesi

### ***Attendance***

- a) Retreat to Nationalism in the 21st Century Globalisation - Lessons for Africa from COVID 19 - B. Mwenesi
- b) Rethinking African Historical & Cultural Scholarship During and After Covid-19: Challenges and Opportunities - B. Mwenesi
- c) Artificial Intelligence and Interpretation - B. Mwenesi
- d) Moi African Cluster Centre webinar entitled: Presentation by Dr Miriam Maranga-Musonye on Nganya Rides: Travel Imaginarise in Matatu Transport in Ongata Rongai - M. Nginye; B. Mwenesi
- e) Conversations on Kenyan Literature and Our Being; Department of Literature, UON - M. Nginye

### ***Review***

Abstracts in French for the Language Association of Eastern Africa - B. Mwenesi

### ***Language Assistantships***

- a) Following a rigorous selection process, two students of the Sub-Department of French proceeded to France to serve as English language assistants.
- b) The Sub-Department facilitated the participation, in the program, of students from other sections of the University of Nairobi, whose contribution was the biggest in the country and positive reports have been received.

### ***Bid for a Project***

In the year 2020, the Sub-Department of French had the honour of being associated, as a potential language service provider, with a bid of the College of Health Sciences for a Digital Health Training project. It can quite safely be assumed that the winning university had within it, health professionals with the relevant operational proficiency in both English and French. Therein, a strong message to be taken note of and acted on by the University of Nairobi.

## **Department of Political Science and Public Administration**

### **Introduction**

The Department of Political Science and Public Administration is one of the oldest Departments in the Faculty of Arts. It is also one of the biggest departments. The Department of Political Science and Public Administration offers diverse programs both at the undergraduate and graduate level. At the undergraduate level the department offers the following programs. First, the Department offers an undergraduate degree programme namely, Bachelor of Arts in Political Science and Public Administration that was first offered in the 1965/66 academic year and the syllabus has undergone several revisions including 1976/77 and the most recent being in the year 2014. Second, beginning July, 2005 and following University programme restructuring and harmonizing exercise, the Department of Political Science and Public Administration took over the teaching and examination of all Political Science courses offered to Bachelor of Education (Arts) students in the College of Education and External Studies (CEES). These courses had previously been offered by the Department of Government and History in the Faculty of Social Sciences in CEES which was scrapped with the “Government” component being absorbed by the Department of Political Science and Public Administration in the Faculty of Arts.

At the postgraduate level the department of Political Science and Public Administration runs five Master degree programmes, i.e. the Master of Arts in Political Science and Public Administration (MAPSPA), Master of Arts in International Relations (MAIR); Master of Arts in Strategic and Security Studies (MASS), Masters of Public Administration (MPA) and Master of Research and Public Policy (MRPP). The Department also offers Doctor of Philosophy (PhD.) programme in Political Science and Public Administration and in 2019 launched Doctor of Philosophy Degree in Public Policy. It is the vision of the Department that the publications, research outputs, outreach activities, consultancies, partnership and linkages will catapult it into an internationally recognized institution that is at the cutting edge of research and transmission of knowledge in the Humanities and Social Sciences.

## Programmes Offered

In 2020, the Department offered the following degree programmes:

1. Bachelor of Arts
2. Bachelor of Arts (Political Science)
3. Master of Arts in Political Science and Public Administration
4. Master of Arts in International Relations
5. Master of Arts in Strategic and Security Studies
6. Masters of Public Administration
7. Master of Research and Public Policy
8. Doctor of Philosophy in Political Science and Public Administration
9. Doctor of Philosophy in Public Policy.
10. Enrolled Students

Programme	No. of Students
Master of Arts in Political Science and Public Administration	8
Master of Arts in International Relations	25
Master of Arts in Strategic and Security Studies	30
Masters of Public Administration	5
Master of Research and Public Policy	10
Doctor of Philosophy in Political Science and Public Administration	10
Doctor of Philosophy in Public Policy.	5

## International Students Component

In 2020, the Department had thirty (30) international students; 3 PhDs and 27 Masters.

## Staff Establishment

Professor	- 1	Assistant Lecturer	- 1
Associate Professor	- 4	Tutorial Fellow	- 1
Senior Lecturer	- 1	Administrative Assistant	- 1
Lecturers	- 10	Secretary	- 1

## Number of Graduates per Programme

Programme	No. of Graduands
Master of Arts in Political Science and Public Administration	7
Master of Arts in International Relations	11
Master of Arts in Strategic and Security Studies	4
Master of Public Administration	7
Master of Research and Public Policy	2
Doctor of Philosophy in Political Science and Public Administration	1
<b>Total</b>	<b>32</b>

## Publications and Conference Presentations

- In 2019, the Department hosted the First Annual Conference on China-Africa Relations during the University of Nairobi Research Week in October. The best papers were published as Special Issue in **The African Review** titled: From Sino-Africa to Africa-China Engagements in the 21<sup>st</sup> Century: Emerging Interdisciplinary Issues and Research Gaps in October 2020, volume 47 (2020). The Journal included the following articles:
  - China-Africa Relations: Interdisciplinary Question and Theoretical Perspectives by Oscar M. Otele.
  - A Transition from Win-win to “win-lose” outcome in Africa’s Trade with China: A Case of in-depth assessments of Kenya’s exports by Joseph Onjala.
  - Nature and Impact of Chinese and South African Engagement on the Development of the City of Lusaka by Hangwei Li and Gilbert Siame.
  - China’s Footprint in Africa’s Peace and Security: The Contending Views by Oita Etyang and Simon Oswan Panyako.
  - The Dragon’s March into the Indian Ocean: Implications for International Trade by Fred Jonyo and Samuel Mbutu.
  - Food Security in the Afro-China Cooperation: The Hanging Untapped ‘Win-Win’ Partnership by Alice Oluoko-Odingo and Elias Ayiamba.
  - Addressing Impact Evaluation Gaps in Belt and Road Initiative Projects in Africa: The Standard Gauge Railway Projects in Africa by Keren Zhu, Rafiq Dosani and Jenniffer Bouey.
  - The Economic Implications of the Belt and Road Initiative in the Development of Railway Transport Infrastructure in Africa: The Case of the Standard Gauge Railway in Kenya by Evaristus Irandu and Hesbon Owilla.
  - Strategic Application of the Tao of Soft Power: The key to understanding China’s expanding influence in Africa by Paul Nantulya.
- Elizabeth Kirkham and Singo Stephen Mwachofi, Tackling the proliferation and misuse of small arms and light weapons in Africa: the role of China-Africa co-operation, Briefing paper, Saferworld (UK), London, Link: <https://www.a-c-e-project.eu/project-publications>.
- Jonyo Fred and Mbutu Samuel 2020, The Dragon’s March into the Indian Ocean: Implications for International Trade, The African Review, Vol. 47
- Jonyo Fred and Okul John 2020, Challenges to Peace and Security in the East African Community (EAC): Actualizing the 2013 Peace and Security Protocol, The Horn, Vol. 3 Issue 5
- Jonyo Fred et al. 2020, The Influence of Demographic Factors in Access to Public Health care in Kenya: A case of Nairobi County, Kenya, Journal of Social Sciences, Vol. 3 No. 2, pgs. 439 – 454



6. Jonyo Fred et al. 2020, The Influence of Socio-Cultural Factors in Access to Public Health care in Kenya: A case of Nairobi County, Kenya, *Journal of Social Sciences*, Vol. 3 No. 3, pgs. 745 – 760
7. Kanyamurwa, John Mary and Obosi Okeyo Joseph. 2020. The Influence of Citizen Competence on District Level Political Accountability in Uganda. *Journal of Public Administration and Governance*, ISSN 2161-7104/2020, Vol. 10, No. 3, URL: <https://doi.org/10.5296/jpag.v10i3.17428>.
8. Katete, George Book Review/Recension De Livres. In *African Journal of Democracy and Governance/Revue africaine de la démocratie et de la gouvernance*, Vol 6, Nos 2 & 3, 2020.
9. Musambayi Katumanga Kenya: Under-developed Maritime Domains and the Mutating Geographies of Terrorism. *Contemporary Security in Africa. Journal of the National Defense College, Kenya*. Vol 5 , No2 November 2020
10. Musambayi Katumanga: The Dilemmas In Somalia: Reframing the National Security Options For Kenya. Occasional paper On National Security. No3, October 2020.
11. Obosi, Okeyo Joseph. 2020. Community Management and Water Service Delivery in Africa, doi: <http://dx.doi.org/10.5772/intechopen.90746>.
12. Oloo Adams 2020 The Weaknesses of Political Parties in N. Cheeseman, K. Kanyinga and G. Lynch (eds) *Oxford Handbook of Kenyan Politics*. London; Oxford University Press.
13. Onyango, Gedion. 2020a. Legislative Oversight and Policy-Reforms in “Unsettled” Political Contexts of Public Administration. *International Journal of Public Administration*, 43(3), 213-228. <https://doi.org/10.1080/01900692.2019.1627556>. (Taylor & Francis).
14. Onyango, Gedion. 2020b Anti-corruption efforts and inter-institutional trust in governmental organizations in Kenya. *African Studies Quarterly* (University of Florida)
15. Onyango, Gedion. 2020c. Whistleblowing behaviours and anti-corruption approaches in public administration in Kenya. *Economic and Political Studies* <https://www.tandfonline.com/doi/abs/10.1080/20954816.2020.1800263>
16. Otele, M. Oscar “China, Region-Centric Infrastructure Drives and Regionalism in Africa”, *South African Journal of International Affairs*, 27(4):1-22. <https://doi.org/10.1080/10220461.2020.1856179> (Taylor & Francis).
17. Otele, M. Oscar “China’s Belt and Road Initiative and Intra-Regional Dynamics in Africa, *African Studies Quarterly*, 19, 3(4), <http://www.africa.ufl.edu/asq/v19/v19i3-4a4.pdf> (University of Florida).
18. Otele, M. Oscar “China-Africa Relations: Interdisciplinary Question and Theoretical Perspectives”, *The African Review*, 47(2) <https://doi.org/10.1163/1821889x-12340019> (Brill Publishers).
19. Zedekia Sidha., Patrick Asingo and Justine Magutu, 2020. Street-Level Bureaucrats as Policy Entrepreneurs: The Nexus between Timing of Traffic Enforcement Activities and Road Safety Policy, *Politics & Policy*, <https://doi.org/10.1111/polp.12386> (Wiley Online Library).

## Research Activities

In 2020, the Department prioritized research activities especially through supervision of student research projects both at the undergraduate and postgraduate levels.

### i) Ongoing Research Activities

#### Prof. Fred Jonyo

- Research on Basic Concepts of Political Economy
- Whole Government Approach (WGA)
- Disrupting Criminal Trafficking and Smuggling Networks through Increased Anti-Money Laundering and Financial Investigation Capacity in the Greater Horn of Africa

### **Prof Musambayi Katumanga**

- Under Developed Maritime Spaces and State Viability/Unviability Options: Under auspices of faculty of the Royal Danish Defense College and the Faculty of Military Science, Stellenbosch University Research Program: African Security Triad-From Leadership to Landward and Maritime Sea Governance.
- Morphing of marginalized Ocean Front spaces into Terror-Insurgency spaces
- Nexus between low levels maximization of Maritime Spaces and State Security and Insecurity Crisis
- Discourses and Realities of the Convergences of MAHAN'S SLOCs and Mackinder's evolving closed spaces in The Great-lakes and Horn of Africa Geographies
- Geo-economic Implications Of the Indian Ocean and Options For State Consolidation in Africa
- Maritime Corridors, Borderlands and Alternatives to Community, State, Regional Security Provisioning Capacity Development
- Differentiated Insecurity Enhancing Infrastructures as platforms for Interdependence and Collective Security
- Kenya: The Viability Question and Options In Mutating Duels With Asymmetrical Challenges in Juba Corridor
- Alternative Regional Security Policy Options for Enhanced Maritime Security Management and Cooperation Under Three Leg Consortium Nairobi

### **Mr. Singo Stephen Mwachofi**

- Domestic Radicalization and Terrorism in Kenya: The Youth, the State and Al Shabaab Authors: Singo Mwachofi and Edmond Pambaby Dr. Emeka Okereke and Prof. Rohan Gunaratna (Editors).
- Kenya's Security Sector: Reform amid Changing Security and Strategic Environments, Routledge by Prof. Shadrack Nasong'o (Editor).

### **ii) Consultancies**

#### **Prof. Fred Jonjo**

- Associate Consultant, Understanding the Perspectives of Displacement affected Communities and Identification, Norwegian Refugee Council (NRC)
- Consultant: National Defence College (NDC), Whole Government Approach
- Consultant: Kenya Revenue Authority, Kenya School of Revenue Administration
- Consultant: National Assembly's Liaison Committee
- Consultant: European Union (EU), Disrupting Criminal Trafficking and Smuggling Networks through Increased Anti-Money Laundering and Financial Investigation Capacity in the Greater Horn of Africa

#### **Dr. Oscar M. Otele**

- Associate Researcher, China-Working Group Consortium on Belt and Road Initiative, COVID-19 and African Agency, Centre for African Studies, University of Florida.
- Consultant, International Crisis Group, The Role of China in Re-energizing Peace Process in South Sudan
- Consultant, The Christian Democratic Party of Norway To review policies, by laws and procedures among political parties in Kenya as they pertain to the inclusion of persons with disabilities

#### **Dr. Joseph Okeyo Obosi**

- Consultant, the Accountability for Water Programme, Partnership for African Social Governance and Research

- Consultant, Understanding the Perspectives of Displacement affected Communities on Identification, Norwegian Refugee Council (NRC)
- Consultant, As Assessment of Performance Improvement Programme, Ushirika High School, Nairobi
- Consultant, Development and Implementation of a School Based Teacher Support System (SBTSS) for English Subject Project No. P160083. Teachers Service Commission/World Bank.

#### Dr. George Katete

- Associate Researcher, International Research on Digital Trust @ Workplace. Conducted surveys to collect and generate data on the level of trust in utility of digital tools in workplace in the Kenyan context.

#### Mr. Singo Stephen Mwachofi

- Lead Researcher, “Analysis of Counter-Terrorism and Juvenile Justice Sector in Kenya” Research undertaken for JICA Kenya Office, December 2019-March 2020.
- Lead Facilitator, “Dialogue, Negotiation and Mediation” Course at the International Peace Support Training Centre (IPSTC): December 2020.

### International Links and Collaborations

The Department maintained international links and collaborations in various activities in the year 2020. Our collaborator included:

1. Hradec Kralov University, Czech Republic
2. Partnership for African Social and Governance Research (PASGR) and Partner Universities (University of Pretoria, Ibadan University)
3. Kenya School of Government (KSG)
4. Konrad Adenauer Stiftung
5. National Intelligence Academy
6. National Defense College (K)
7. Defense Staff College (K)
8. Horn of African Institute

### Major Achievements, Challenges and Strategic Projections

Achievements	Challenges	Strategic Projections
Increase in research activities	Decrease in the number of international students due to COVID-19	Encourage and target high impact journals
Increase in scientific publications in referred journals	Inadequate office staff	Meeting with postgraduate students for tracking student progress in research
Increase in the number of postgraduate students theses/projects	Some lecturers reluctant to publish or publish in very low impact factor journals	To fast track PhD studies

Publication of 2019 conference outputs in a special issue	Delay in postgraduate students in completion of thesis/project research Overwhelmed and demotivated faculty Delayed payment of DSP	To increase the faculty capacity
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## Other Relevant Activity

### i) Departmental Seminar and UoN@50 Seminars

- Departmental Seminar on Political Theory of Xenophobia
- Sixty Years of Post-Independence Governance in Africa: Trends and Lessons Learnt
- Global Political Economy and Africa's Development over the last 60 years.
- The Impact and Implications of Covid on the University Fraternity: What way forward for Students and Staff

### ii) External Examiners

Academic Staff Acting as External Examiners 2020

Staff	Institution
Prof. Phillip Nying'uro	Department of History, Political Science and Public Administration, Moi University
Prof. Fred Jonyo	School of Development and Strategic Studies (SDSS), Maseno University
Prof. Fred Jonyo	School of Social Sciences, University of Botswana,

### iii) State Appointments, Honors and Decorations

#### Prof. Adams Oloo

- Board member, Kenya School of Government
- Elder of the Burning Spear (EBS)
- Vice Chair- Building Bridges to Unity Advisory Steering Committee

#### Mr. Singo Stephen Mwachofi

Member, Committee of Experts to the Building Bridges Initiative (BBI) Task Force, 2019-2020

### iv) Fellowships and Awards

#### Mr. Singo Stephen Mwachofi

Winner of Carnegie Foundation PhD Fellowship in Public Policy, January 2020

# Department of Psychology

## Introduction

The Department of Psychology was started at Kikuyu Campus of the University of Nairobi in 1988. Initially, it was started mainly to service Education and Nursing Departments. In 1999, the Department developed a Bachelor of Psychology (Counselling) degree Programme. The primary objective was to train counsellors. However, when the Department of Psychology was transferred from College of Education and External Studies to the Faculty of Arts in 2005, there was the need to review the syllabus to meet the Faculty of Arts regulations. The syllabus was, therefore, reviewed to enable students, in the Faculty of Arts, who were interested in psychology to gain access.

Currently, the Department is teaching the Psychology component in the Bachelor of Arts and the Bachelor of Economics and Statistics in the College of Humanities and Social Sciences; Bachelor of Education programs (College of Education and External Studies and Kenya Science, College of Agriculture and Veterinary Sciences); Bachelor of Science (College of Engineering and Architecture); Bachelor of Science Nursing (College of Health Sciences). The Department has also programmes in Mombasa and Kisumu Campuses.

## Programmes and Services Offered

The following programmes are offered:

- |  |                                     |
|--|-------------------------------------|
| i) Diploma in Counselling Psychology           | iv) Master of Psychology            |
| ii) Bachelor of Arts (Psychology)              | v) Master of Counselling Psychology |
| iii) Bachelor of Arts (Counselling Psychology) | vi) PhD in Psychology               |

## Strategic Issues

The department in the year 2020 period developed a Postgraduate Diploma in Psychology. The Diploma will give access to graduates who are interested in pursuing psychology at Masters Level but are not admissible because they did not have a background in psychology. The Postgraduate Diploma will also be accessible to graduates of other specialties who may need psychology to enhance their work.

## Major Achievements in the Year 2020

The Department was able to graduate 15 Masters Students in various specialties, despite the COVID-19 challenges. The specialties included: Counseling psychology, Organizational Psychology, Community Psychology and Forensic Psychology. This is in addition to many other undergraduate and Diploma students who graduated in the same year.

## Corporate and Community Outreach Activities

The department has a vibrant psychology club that reaches out to the public especially in support of Children's homes. However, the club was not active in 2020 due to the COVID-19 pandemic.

The department, however, organized an online seminar on coping with the COVID-19 stressor. The key presenters were a member of staff Mrs Jean Wachira and a guest speaker Dr. Elizabeth Ngozi.

## Staff Portfolio

Designation	No. of Staff
Professors	3
Associate Professors	2
Lecturer	1
Lecturers	12
Tutorial Fellow	3
Graduate Assistant	1
Sign Language Translator	1
<b>Total</b>	<b>23</b>

## Projections

The Department hope to evolve into an Institute of Psychology in future.

# School of Business

## Introduction

The School of Business, formerly Faculty of Commerce, was established in 1956/57 academic year in the then Royal Technical College to offer special academic and professional examinations in the accountancy and secretarial practice. Following its inception in 1964, the first bachelor of commerce class was admitted with 35 students in Main Campus. The School moved to its current location at Lower Kabete Campus in the premises formerly occupied by the Kenya Institute of Administration in 1988.

The School provides leadership in the pursuit of business management programmes, providing knowledge and applications through customer-driven teaching, training, research, consultancy and community services.

Currently, the School offers thirteen (13) programmes namely: Bachelor of Commerce (B.Com), Bachelor of Science in Accounting, Bachelor of Science in Finance, Bachelor of Science in Operations and Supply Chain Management, Master of Business Administration (MBA), Master of Science in Finance (MSc. Finance), Master of Science programmes in Human Resource Management, Marketing, Entrepreneurship & Innovations Management, Master of Science in Supply Chain Management, Master Science in Operations and Technology Management and the Doctor of Philosophy (PhD) in Business Administration. The School continues to review its curriculum in line with the emerging market and individual needs.

In line with the current demands in the market, the School is in the process of launching new programmes at the undergraduate level.

The School of Business is currently operating in four distinct locations namely: the Lower Kabete Campus which serves as the headquarters of the School's operations; the Main Campus location comprising of Main Campus, University of Nairobi Tower and Chiromo Campus that mainly serves the Module II evening programmes; the Mombasa Campus established in 2004, the Kisumu Campus established in 2008.

The School currently has a population of over ten thousand (10,000) students spread in the thirteen (13) programmes and across the various teaching locations. The School has a rich pool of qualified teaching staff with adequate training, teaching and research experience. This ensures the production of all-round graduates who have over the years competed very well in the job market.

The programmes are offered in several modes i.e. fulltime, part-time and distance learning modes. The part-time and distance learning programmes are designed to accommodate the special needs of those in full time employment and other related engagements. For detailed and specific information on each programme, kindly see the accompanying write-ups by heads of departmental units.

## Courses Offered

1. Bachelor of Commerce with specialization in the following: Finance, Accounting, Marketing, Human Resource Management, Insurance, Procurement & Supply Chain Management, Operations Management and Business Information Systems
2. Bachelor of Science in Accounting
3. Bachelor of Science in Finance
4. Bachelor of Science in Operations and Supply Chain Management
5. Master of Business Administration with specialization in the following: Finance, Human Resource Management, Strategic Management, International Business Management, Marketing, Insurance, Management Information Systems, Operations Management, Procurement and Supply Chain Management and Project Management.
6. Master of Science in Finance

7. Master of Science in Entrepreneurship & Innovations Management
8. Master of Science in Human Resource Management
9. Master of Science in Marketing
10. Master of Science in Supply Chain Management
11. Master of Science in Operations and Technology Management
12. Doctor of Philosophy in Business Administration

## Student Enrolment 2020

Programme	No. of Students
Bachelor of Commerce	4,418
Bachelor of Commerce (Distance Learning)	149
BSc. Accounting	48
BSc. Finance	117
BSc. Operations and Supply Chain Management	32
Master of Business Administration	3,331
Master of Science (Finance)	709
Master of Science in Human Resource Management	81
Master of Science in Marketing	82
MSc. (Entrepreneurship and Innovations Management)	123
MSc. Supply Chain Management	76
MSc. Operations and Technology Management	57
Doctor of Philosophy Degree in Business Administration	935
<b>Total</b>	<b>10,158</b>

### Summary of Students Enrolled

Undergraduate - 4,764 students  
Postgraduate - 5,394 students

Undergraduate - 50  
Postgraduate - 161

### International Student Component

In the year 2020, the international student component in the School was as follows:

#### Summary by Programme

Programme	No. of Students
Bachelor of Commerce	45
Bachelor of Science in Accounting	1
Bachelor of Science in Finance	4
Master of Business Administration	79
Master of Science in Finance	46
Master of Science in Human Resource Management	6
Master of Science in Entrepreneurship Innovations and Management	1
Master of Science in Supply Chain Management	13
Master of Science in Operations and Technology Management	1
Doctor of Philosophy in Business Administration	15
<b>Total</b>	<b>211</b>



## Number of Graduates per Programme

Programme	Number
Bachelors	568
Masters	315
PhD	14
<b>Total</b>	<b>897</b>

## Research Activities

The School has continued to prioritize research activities especially through analysis and supervision of student research projects both at the undergraduate and postgraduate levels.

## International Links and Collaborations

The School currently have the following links and collaborations:

1. Collaboration with GfK-Germany aimed at establishing a Master of Science programme in Marketing Research;
2. Collaboration with SMC University for on line MSc. and PhD programmes;
3. Collaboration with Barclays Bank where the bank has sponsored an Endowed Chair through the Department of Finance and Accounting;
4. The School remains an active member of the Association of African Business Schools (AABS) which acts as a benchmarking body for business schools across the continent.
5. Collaboration with EFMD (European Foundation for Management and Development) in collaboration with Strathmore University in its efforts to foster interaction and exchange of ideas among scholars.
6. Collaboration with Shanghai Finance University aimed at developing joint undergraduate program.

## Publications

1. Ondiek, T.O., Odock, S.O., Njihia, J.M. & K'Obonyo, P.O. (2020). Examining the Effect of Organizational Culture on the Relationship between Supply Chain Quality Management Practices Adoption and Performance of Private Hospitals in Kenya. *European Scientific Journal*, 16(31), 147-161
2. Ondiek, T.O., Odock, S.O., Njihia, J. M. & K'Obonyo, P.O. (2020). Supply Chain Quality Management Practices and Performance of Private Hospitals in Kenya. *DBA Africa Management Review* 10(5), 57-78
3. Mkwizu K.H., Matama R. & Marika N. (2020). Milk Society and Industrialization in East Africa. *The Operations Research Society of East Africa Journal*, Vol. 9 (1), January
4. Mutua, D.M., Odock S.O. & Litondo, K. (2020). Green Logistics Practices and Firm Performance: The Mediating Effect of Economic Performance among Logistics Firms in Kenya. *European Scientific Journal*, 16(25), 142-159
5. Mutua, D.M., Odock S.O. & Litondo, K. (2020). Effect of Green Logistics Practices on Performance of Logistics Firms in Kenya. *DBA Africa Management Review* 10(4), 20-35
6. Swalehe, R.W., Odock, S.O. & Gituro, W. (2020). Moderating Effect of Firm Age and Size on the Relationship between Sustainable Operations Management Practices and Competitive Advantage of Manufacturing Firms in Kenya. *DBA Africa Management Review* 10(4), 106-125
7. Swalehe, R.W., Odock, S.O. & Gituro, W. (2020). Sustainable Operations Management Practices and Competitive Advantage of Manufacturing Firms in Kenya. *European Scientific Journal, ESJ*, 16(28), 241-262

8. Mkalama B.W., Ndemo B.E. & Maalu J.K (2020). The Antecedents of Innovativeness in Small and Medium Manufacturing Enterprises in Kenya: A Qualitative Approach. *The African International Journal of Business and Management*, June, Vol. 6(1)
9. Mkalama B.W., Ndemo B.E., Maalu J.K. & Pokhariyal G. P. (2020). Entrepreneurial Orientation and Firm Innovativeness in Manufacturing Small and Medium Enterprises: The Moderating Effect of Environmental Dynamism. *European Scientific Journal, ESJ*, May, Vol. 16, No. 13
10. Mwanyota J., Njihia M., Maalu J. & Iraki X.N. (2020). Reverse Logistics and Competitive Advantage: The Mediating Effect of Operational Performance among Manufacturing Firms in Kenya. *European Scientific Journal*, July Edition Vol. 16, No. 19
11. Ongeru R.N., Magutu P.O. & Litondo K. (2020). Business Process Re-Engineering Strategy and Service Delivery: Does the Moderating Role of Information Technology Infrastructure Matter? *Manufacturing, DBA Africa Management Review*. 10 (4), 71-91
12. Ongeru R.N., Magutu P.O. & Litondo K. (2020). The Moderating Effect of Information Technology Infrastructure on the Relationship between Business Process Re-Engineering Strategy and Performance of Food Manufacturing. *DBA Africa Management Review*. 10 (4), 71-91
13. Ongeru R.N., Magutu P.O. & Litondo K. (2020). The Business Process Re-Engineering Strategy: Its Impact on the Performance of Companies Manufacturing Food in Kenya. *European Journal of Business and Management Research*. 5 (5)
14. Makini S.O., Awino Z.B. & Magutu P.O. (2020). The Moderating Effect of Operating Environment on Corporate Governance and Firm Performance: A Case of Corporate Entities Listed at the Nairobi Securities Exchange. *DBA Africa Management Review*. 10 (5), 97-106
15. Nyamweya J.M., Ochieng D.E., Ondigo J. & Magutu P.O. (2020). Economic Growth, Financial Deepening, Income Distribution, Financial Efficiency and Poverty Level Nexus: A Co-integration and Causality Analysis in Kenya. *DBA Africa Management Review*. 10 (3), 58-72
16. Nyamweya J.M., Ochieng D.E., Ondigo J. & Magutu P.O. (2020). Moderating Effect of Financial Efficiency on the Relationship between Economic Growth and Poverty Levels in the EAC Countries. *DBA Africa Management Review*. 10 (2), 125-146
17. Nyamweya J. M., Ochieng D.E., Ondigo J. & Magutu P.O. (2020). Relationship between Economic Growth, Financial Deepening, Income Distribution, Financial Efficiency and Poverty Levels within East Africa Community Member Countries. *Africa Development Finance Journal*. 4 (2), 50-61
18. Ongoto H.K., Munyoki J. Kibera F. & Magutu P.O. (2020). Moderating Role of Organization Demographics on the Relationship between Grand Personality and Customer Service Delivery of Public Universities in Kenya. *DBA Africa Management Review*. 10 (2), 53-72
19. Nyamweya J.M., Ochieng D.E., Ondigo J. & Magutu P.O. (2020). Economic Growth, Financial Deepening, Income Distribution, Financial Efficiency and Poverty Level Nexus: A Co-integration and Causality Analysis in Kenya. *DBA Africa Management Review*. 10 (3), 58-72
20. Muiruri J. W. & Magutu P.O. (2020). Quality Management Practices and Competitiveness of Manufacturing Firms in Nairobi. *International Journal of Supply Chain and Logistics*. 4 (1), 27-45
21. Nyamweya J.M., Ochieng D.E., Ondigo J. & Magutu P.O. (2020). Is there any Mediating Effect of Financial Deepening on the Relationship between Economic Growth and Poverty Levels in the EAC Countries? *International Journal of Finance and Banking Research*. 6 (4)
22. Ogada J.A., Nyamwenge S.O., Magutu P.O. & Ongeru R.N. (2020). Quality Management System Implementation and Operation Performance of National Council for Law Reporting, Kenya. *Noble International Journal of Business and Management Research*. 4 (5), 38-48

23. Nangulu E. & Magutu P.O. (2020). Capacity Management Strategies and Operational Performance of Sugar Manufacturing Firms in Kenya. *Noble International Journal of Business and Management Research*. 4 (2), 09-19
24. Kivuti C.K. & Mutunga O. (2020). Effect of Behavioural Biases on Investment Decisions for Individual Investors at Nairobi Securities Exchange. *International Journal of Social Science and Economic Research*, May, Vol. 5 (5)
25. Odipo E.A. & Mutunga O. (2020). Effect of Mobile Banking Services on Financial Performance of Deposit-Taking SACCOs in Kenya. *International Journal of Social Science and Economic Research*, May, Vol. 5 (5)
26. Ongenge G.M. & Marika N.K.M. (2020). Hospital Referral System and Patient Satisfaction. Paper presented at the DBA AMR Conference. October
27. Onditi E.O., Kibera F.N., Aranga J.J. and Iraki X.N. (2020). The Influence of Firm Size on the Relationship between Market Orientation and Non-financial Performance of Private Security Firms in Kenya. Paper presented at the DBA AMR Conference. October
28. Voreza K.L., Marika N.M. & Mogikoyo L. K. (2020). Consumer Sales Promotions and Brand Equity of Selected Toothpaste Brands in Kenya. Paper presented at the DBA AMR Conference. October
29. Oduori K.E. & Ndambuki M. (2020). Digitalization and Supply Chain Risk among Commercial Banks in Kenya. Paper presented at the DBA AMR Conference. October
30. Munyoki J.M. (2020). Marketing and Entrepreneurship as Tools of Economic Growth: A Study of Weavers of African Baskets in Kitui County Kenya. Paper presented at the DBA AMR Conference. October
31. Wachira J. & Njeru W. (2020). Sustainability Marketing Practices and Performance at General Electric Kenya. Paper presented at the DBA AMR Conference. October
32. Benadatte L.M. & Munyoki J. (2020). Perceived Effect of Customer Relationship Management Practices on Customer Satisfaction among Telecommunication Companies in Kenya. Paper presented at the DBA AMR Conference. October
33. Kiruthu S.G., Munyoki J.M. & Kinoti M. (2020). A Critical Literature Review on the Effect of Customer Orientation on Organizational Performance. Paper presented at the DBA AMR Conference. October
34. Walubengo W. & Njeru W. (2020). Corporate Brand Identity and Customer Satisfaction at Java House, Nairobi. Paper presented at the DBA AMR Conference. October
35. Mwangi D. & Kariuki M.M. (2020). The Perceived Effect of Workplace Environment on Employee Job Performance at Prudential Life Assurance in Kenya. Paper presented at the DBA AMR Conference. October
36. Munjuri M.G. & George L.M. (2020). Leadership Approaches and Employee Performance in the Energy Sector Parastatals in Kenya. Paper presented at the DBA AMR Conference. October
37. Okiro C. & Kariuki M. M. (2020). Effects of Human Resource Development Practices on Employee Job Performance in State Corporations in Nairobi. Paper presented at the DBA AMR Conference. October
38. Ogollah K. & Mwangi P. (2020). Right or Left? Which Hand do I play as the Tide Turns? Paper presented at the DBA AMR Conference. October
39. Mwakio S.M, Ndemo B., Awino Z.B. & Ndambuki M. (2020). The Effect of Entrepreneurial Training, Orientation and Organizational Size on Performance: A Conceptual Overview. Paper presented at the DBA AMR Conference. October
40. Thuita W.J. & Njeru W. (2020). Marketing Information Systems and Competitive Advantage at Consolidated Bank of Kenya Limited. Paper presented at the DBA AMR Conference. October

41. Angima C. & Mueni F. (2020). Effect of Digital Adoption and Performance of Insurance Companies in Kenya. Paper presented at the DBA AMR Conference. October
42. Twalib M. (2020). Wondering Wanderers: A Study of In-group, Out-group and Caught in the Middle. Paper presented at the DBA AMR Conference. October
43. Gworo C.O. & Onsomu Z. (2020). Financial Planning and Performance of Listed Firms: A Critical Literature Review. Paper presented at the African Development Finance Journal (ADF) Conference. October
44. Okiro K. & Ombati D. O. (2020). Detection of Fraud in Financial Statements using Beneish Ratios for Companies Listed at the Nairobi Securities Exchange. Paper presented at the African Development Finance Journal (ADF) Conference. October
45. Oruke M. & Omoro N. (2020). Corporate Governance: What can we learn from State Owned Enterprises in Kenya? Paper presented at the African Development Finance Journal (ADF) Conference. October
46. Mutunga O. (2020). Effect of Mobile Banking Services on Financial Performance of Deposit Taking SACCOs in Kenya. Paper presented at the African Development Finance Journal (ADF) Conference. October
47. Sanda T. O. & Omoro N. (2020). Enterprise Risk Management and Firm Performance amongst Financial Firms Listed at the Nairobi Securities Exchange. Paper presented at the African Development Finance Journal (ADF) Conference. October
48. Onsomu Z. (2020). Microfinance and Financial Inclusion. Paper presented at the African Development Finance Journal (ADF) Conference. October
49. Engefu G., Omoro N. & Kinyua H. (2020). The Politics of revenue Allocation and Resource Control in Kenya: Implications for County Governments Stability. Paper presented at the African Development Finance Journal (ADF) Conference. October
50. Kirimi S. & Elly D. (2020). Effect of National Budget Allocation on County Economic Growth in Kenya. Paper presented at the African Development Finance Journal (ADF) Conference. October
51. Waruingi V. & Elly D. (2020). Effect of Healthcare Budget Allocation on County Economic Growth in Kenya. Paper presented at the African Development Finance Journal (ADF) Conference. October
52. Simiyu R. & Elly D. (2020). Effect of Public Debt on Achieving Sustainable Development Goals in East Africa Community. Paper presented at the African Development Finance Journal (ADF) Conference. October
53. Kanji J. & Elly D. (2020). Need for Deposits, Supplies and Working Capital Regulations in Kenya. Paper presented at the African Development Finance Journal (ADF) Conference. October
54. Mulei M. & Barasa J.L. (2020). Effect of Board Characteristics on Financial Performance of Commercial Banks Listed at the NSE. Paper presented at the African Development Finance Journal (ADF) Conference. October
55. Wanyiri W. & Barasa J.L. (2020). Effect of Internal Controls on Financial Performance of Commercial Banks in Kenya. Paper presented at the African Development Finance Journal (ADF) Conference. October
56. Ojuok M. & Omoro N. (2020). Determinants of Financing Patterns and Performance among Small and Medium Enterprises in Kisumu County. Paper presented at the African Development Finance Journal (ADF) Conference. October
57. Kemunto G.K. & Omoro N. (2020). Determinants of Youth Enterprises Development Fund Loan Repayment in Kisumu County, Kenya. Paper presented at the African Development Finance Journal (ADF) Conference. October

58. Khobes S.S. & Barasa J.L. (2020). Effect of Individual Policy on Financial Performance of Listed Manufacturing and Allied Firms in Kenya. Paper presented at the African Development Finance Journal (ADF) Conference. October
59. Gitonga T.K. & Barasa J.L. (2020). The Effect of Risk Management on Profitability of Commercial Banks in Kenya. Paper presented at the African Development Finance Journal (ADF) Conference. October
60. Elly D., Kinyua H. & Adika C. (2020). Presidential Coronavirus Containment Protocol Announcements and Stock Returns at the Nairobi Securities Exchange. Paper presented at the African Development Finance Journal (ADF) Conference. October
61. Oriwo E. & Elly D. (2020). Macroeconomic Factors and Stock Returns at the Nairobi Securities Exchange. Paper presented at the African Development Finance Journal (ADF) Conference. October
62. Muriungi A., Mirie M. & Okiro K. (2020). Dividend Signaling and Shareholder Monitoring: Empirical Evidence from Nairobi Securities Exchange. Paper presented at the African Development Finance Journal (ADF) Conference. October
63. Onsomu Z. (2020). Effect of Automation of Accounting Services on the Performance of Commercial Banks in Kenya. Paper presented at the African Development Finance Journal (ADF) Conference. October
64. Kinoti M. & Iraki X. N. (2020). Reactions to Covid-19 Pandemic by Individuals and Micro and Small Business in Kenya. Paper presented at the 11<sup>th</sup> African International Business Management (AIBUMA) Conference. October
65. Busaka V. & Munyoki J. (2020). Innovation Capability, Creativity, Technology and Performance of Insurance Companies in Kenya. Paper presented at the 11<sup>th</sup> African International Business Management (AIBUMA) Conference. October
66. Daybah N.T. & Marika N.K.M. (2020). Logistics and Transportation Practices on Organizational Performance in the Milk Processing Firms in Kenya. Paper presented at the 11<sup>th</sup> African International Business Management (AIBUMA) Conference. October
67. Mudogo K.E. Njeru W. (2020). Technological Innovation and Performance of Telecommunication Companies in Kenya. Paper presented at the 11<sup>th</sup> African International Business Management (AIBUMA) Conference. October
68. Kinoti M. & Wangai R. (2020). The Influence of Public Sector Marketing Practices on Service Delivery in Government Ministries in Kenya. Paper presented at the 11<sup>th</sup> African International Business Management (AIBUMA) Conference. October
69. Marieta M. & Munyoki J. (2020). Influence of Digital Marketing Strategies on Performance of Real Estate Firms in Nairobi City County, Kenya. Paper presented at the 11<sup>th</sup> African International Business Management (AIBUMA) Conference. October
70. Macharia D.K. & Njeru W. (2020). Service Innovation and Performance of Star Rated Hotels in Nairobi County. Paper presented at the 11<sup>th</sup> African International Business Management (AIBUMA) Conference. October
71. Halako M. (2020). Ingratiators Quandary: Ranking the Dimensions of Ingratiation. Paper presented at the 11<sup>th</sup> African International Business Management (AIBUMA) Conference. October
72. Ogollah K. (2020). Public versus Private Sector Individuals: Is there a Behavioural Link? Paper presented at the 11<sup>th</sup> African International Business Management (AIBUMA) Conference. October

73. Kegoro O.H. & Munyoki J. (2020). The Relationship between Brand Personality and Customer Service Delivery: Perspectives from Public Universities in Kenya. Paper presented at the 11<sup>th</sup> African International Business Management (AIBUMA) Conference. October
74. Halako M. (2020). Deliver us from the Endemic of Mediation and Moderation Research. Paper presented at the 11<sup>th</sup> African International Business Management (AIBUMA) Conference. October

### Staff Portfolio

Designation	No. of Staff
Professor	8
Associate Professor	10
Senior Lecturer	15
Lecturer	41
Assistant Lecturer	3
Tutorial Fellows	15
Visiting Lecturer	1
Administrative Staff	4
Secretary	7
Clerk	14
Lab Assistant/Technologist	5
Drivers	2
Accounts Staff	1
Machine Operator	2
Messenger	3
<b>Total</b>	<b>131</b>

### Research and Conferences for the Year

In the year 2020, the School hosted three (3) successful international conferences:

1. The 11<sup>th</sup> African International Business Management (AIBUMA) Conference
2. The African Development Finance Journal (ADF) Conference
3. DBA Africa Management Review Journal Conference

## School of Economics

### Introduction

The School of Economics offers education and research training in economics to local and international students. It has highly qualified teaching staff supported by a dedicated and highly experienced administrative staff. The School is a member of the African Economic Research Consortium collaborative graduate training programs network.

### Programmes Offered

The School offers instruction in Economics at the Bachelors, Masters and Doctoral levels. The programmes cover three thematic areas: Economic Theory; Applied Economics; Mathematical and Quantitative Economics.

### Undergraduate Programmes

The School offers instruction in two (2) undergraduate programs:

1. Bachelor of Economics
2. Bachelor of Economics and Statistics (in collaboration with School of Mathematics).

The School also offers a common undergraduate course in Economics to all first year students in the University. In addition, the School provides service teaching of Economics in Faculties/Schools in the University, especially School of Built Environment, Faculty of Arts, School of Business and School of Education.

### Masters Programmes

Postgraduate training at Masters level in the School is organized in three (3) programmes:

- i) Master of Arts in Economics
- ii) Master of Arts in Economic Policy Management
- iii) Master of Science in Health Economics and Policy

### Doctoral Programme

The School of Economics has trained many doctoral students. Initially, the doctoral programme was by thesis only. Since 2008, the doctoral program added coursework and examination. Students join the program as scholarship holders under The African Economic Research Consortium or as Self Sponsored students.

### Strategic Issues

1. The School has focus on the following issues which impact achievement of its mission.
2. How to ensure that the academic calendar has adequate time for research and rejuvenation of staff.
3. How to enhance collaboration with domestic and international organizations in research, teaching and capacity building.
4. How to ensure continuous improvement in quality and relevance of teaching, research and community service.
5. How to increase number of postgraduate students toward becoming a School of postgraduate training in Economics.
6. How to ensure that people who labour within the School do so under conducive working environment

## Major Achievements 2020

### Student Enrollment

The total enrolment in the School is as follows:

Postgraduate Programmes	Total
PhD in Economics	10
MA in Economics	40
MA in Economic Policy Management	16
MSc. in Health Economics & Policy	21
<b>Total</b>	<b>77</b>
Undergraduate Programmes	
Bachelor of Economics	175
Bachelor of Economics & Statistics	193
<b>Total</b>	<b>368</b>
<b>Grand Total</b>	<b>445</b>

### Number of Graduates

In the year 2020, the number of graduates was distributed as follows:

Postgraduate Programmes	No. of Graduates
PhD in Economics	2
Master of Arts in Economics	40
Master of Arts in Economic Policy Management	7
Master of Science in Health Economics and Policy	29
<b>Sub-total</b>	<b>78</b>
Undergraduate Programmes	
Bachelor of Economics	176
Bachelor of Economics and Statistics	295
<b>Sub-total</b>	<b>471</b>
<b>Total</b>	<b>549</b>

### Research Activities

1. The School staff participated in various webinars in 2020, a period whose scholarly activities were shaped by COVID-19 pandemic
2. The School is implementing the following funded research projects:
  - i) Water Pricing and the Poor: Designing and delivering improved subsidies for water and sanitation services in Nairobi, Kenya. Funded by SIDA (Swedish International Development Agency).
  - ii) Inequality Trends and Diagnostics in Kenya. Funded by Agence-Francaise de Development (Afd).
  - iii) Transforming Social Inequalities Through Inclusive Climate Action (Tsitica). Funded by UKRI, GCRF and ARUA.
  - iv) Activity Based Costing and Management to HIV Care and Treatment in Kenya and Mozambique. In Partnership with Palladium International LLC. Funded by USAID



## International Links and Collaborations

The School maintained active external links with various institutions in research and capacity building. These institutions are:

1. University of Gothenburg in support of the Environment for Development-Kenya (EfD)
2. African Economic Research Consortium
3. World Trade Organization (WTO)
4. UNCTAD Virtual Institute on Trade and Development
5. Agence-Francaise de Development (Afd)
6. University of Quebec in Montreal
7. University of Cape Town and University of Ghana as partners in the ARUA Center of Excellence in Inequality Research (ACEIR)
8. Palladium International LLC
9. UN Women
10. Partnership for Economic Policy (PEP)

## Publications

1. Nicky RM Pouw, Barbara Rohregger, Esther Schüring, Kennedy, A Alatinga, **Bethuel Kinuthia**, Katja Bender, 2020 “Social protection in Ghana and Kenya through an inclusive development Lens. Complex effects and risks”. *World Development Perspectives* 17: 1-10
2. Gideon Mukui, Joseph Onjala, & **Japheth Awiti.**, 2020. Effect of Tax and Debt Financed Government Expenditure on Economic Growth in Kenya. *Journal of Economics, Management and Trade*, 26(1), 1-13.
3. Rachael W. Gachogo, **Daniel N. Mwai**, Frank G. Onyambu, 2020. Cost analysis of implementing HIV drug resistance testing in Kenya: a case study of a service delivery site at a tertiary level hospital in Kenya. *F1000Research* 2020, 9:793 [https://doi.org/10.12688/f1000\\_research.23379.1](https://doi.org/10.12688/f1000_research.23379.1)
4. Amutabi, C. & Wambugu, A., 2020. Determinants of labor productivity among SMEs and large-sized private service firms in Kenya. *African Development Review*, Vol. 32, Issue 4. <https://doi.org/10.1111/1467-8268.12463>
5. Manda, D.K., Mugo, M.G., & Murunga, J., 2020. Health Expenditures and Health Outcomes in Kenya. *European Scientific Journal*. Vol. 16(22).
6. Mbithi, M.L., 2020. Does COMESA Have Export Potential to Emerging Economies? *Journal of Economics and Sustainable Development*, Vol.11, No.10, 2020.
7. Gatauwa, J.M., Kaijage, E.S., & **Kiriti-Nganga, T.**, 2020. Intervening Effect of Selected Macroeconomic Factors on Fiscal Policy Stance and Public Expenditure in Kenya. *The Pan-African Journal of Business Management*, Volume 4(1).
8. **Socrates, M.K.**, Moyi, E., & **Gathiaka, K.**, 2020. Explaining Export Duration in Kenya. *South African Journal of Economics*. Vol. 88(2).
9. Barasa, L., 2020. Teacher Quality and Mathematics Performance in Primary Schools in Kenya. *African Journal of Research in Mathematics, Science and Technology Education*, Vol. 24(1).
10. **Barasa, L.**, **Kinyanjui, B.**, Knoblen, J., Vermeulen & Kimuyu, P., 2020. Innovation and exporting: the case of mediation effects in Sub-Saharan Africa. *Industry and Innovation*, 28:2, 113-135, DOI: 10.1080/13662716.2020.1768514.
11. Haana, A., Dowieb, G., & **Mariara, J.** 2020. To RCT or not, is not the question: Methods for policy-relevant research on gender equality. *World Development*, Volume 127.
12. Muriu, P., 2020. The Impact of Microfinance Programs: A Review of Data and Methodological Dilemma. *Journal of Economics and Sustainable Development*, Vol. 11(22).

13. Wanja, D., & Muriu, P., 2020. Does Pecking Order Theory Hold Among Kenyan Firms? *Journal of Economics and Business*, Vol.3 No.1.
14. Ochenge, R., Muriu, P., & Ngugi, R., 2020. Macroeconomic Conditions and Stock Market Liquidity in Kenya. *International Journal of Economics and Finance*; Vol. 12, No. 12.
15. Opondo, E.M., & Oleche, M.O., 2020. “Out-Of-Pocket Health Expenditure among the Elderly in Kenya,” *Global Journal of Health Science, Canadian Center of Science and Education*, vol. 12(11), pages 53-64.
16. Kipkorir, M. K. & Oleche, M.O., 2020. Short and Long-Run Impact of Trade Liberalization on Agricultural Growth in Kenya. *International Journal of Finance, Insurance and Risk Management*, Vol X, (3).
17. Ochieng, J., Abala D., & Mbithi, L.M., 2020. Infrastructure development, institutions, and intra-regional trade: The case of East Africa. *The European Journal of Applied Economics*, Vol. 17, (2), pp. 104-118.
18. Kimunio, I.K., Muniu, J.M., & Kinuthia, B.K., 2020. Foreign-owned banks and their impact on Kenya’s financial stability. *SN Business and Economics* 1(18), <https://doi.org/10.1007/s43546-020-00019-4>.
19. Musyoka, P.K., Joseph Onjala, J. and Mureithi, L.P., 2020, Infrastructure Growth, Household Vulnerability and Response to Shocks in Kenya. *African Journal of Economic Review*, vol. 8(1)
20. Gathiaka, J.K. & Muriithi, M.K, 2020, Empirical Analysis of Livelihood Strategies and Food Insecurity in Turkana County, Kenya. *Tanzanian Economic Review*, Vol. 10 (1)
21. Ogo, I. O., & Kioko, U. M. (2020). Progressivity of the Output Based Aid Voucher Programme and its Effects on Family Planning and Maternal Health in Nairobi and Kiambu Counties, Kenya. *European Scientific Journal, ESJ*, 16(25), 175. <https://doi.org/10.19044/esj.2020.v16n25p>
22. Socrates, M.K and & Mwanja D.K., 2020, Pragmatic History of Economic Thought: Explaining Trade Practices and Policies in Kenya, *Tanzanian Economic Review*, Vol. 10 (1)
23. A.M, H, & Ongeri B.O. 2020. Effect of Islamic banking development on economic growth –A case of the Kenyan Economy. *International Journal of Scientific Research and Innovative Technology*. 7(2)
24. Ongeri, B.O. & Mutasa F. 2020. Commercial banks’ performance and economic growth nexus: -An Empirical Analysis of Kenya’s Commercial Banks. *International journal of scientific research and innovative technology*. 7(3).
25. Ochenge, R.O., Ngugi, R. & Muriu, P., 2020, Foreign equity flows and stock market liquidity in Kenya, *Cogent Economics & Finance*, 8:1, DOI: [10.1080/23322039.2020.1781503](https://doi.org/10.1080/23322039.2020.1781503)

### Book Chapters

1. Kiiiru J.M., Barasa L.N. (2020) Securing Inclusive Growth: Mentorship and Youth Employment in Kenya. In: Ramutsindela M., Mickler D. (eds) *Africa and the Sustainable Development Goals*. Sustainable Development Goals Series. Springer, Cham. January 2020 <https://doi.org/10.1>
2. Mwai, D. & Maina, T., 2020. Tracking Health Resources Using Health Accounts. In the Palgrave Handbook of Global Health Data Methods for Policy and Practice. *Springer International Publishing*.

### Working Papers

1. Damiano Kulundu MANDA & Reuben MUTEGI & Samuel KIPRUTO & Moses MURIITHI & Martine OLECHE & Germano MWABU & Stephen D. YOUNGER, 2020. “Fiscal incidence, inequality and poverty in Kenya: A CEQ assessment,” Working Paper cb01f7d3-407b-418c-a79e-9, Agence française de développement.
2. Barasa, L., 2020. Closing the gap: Gender and innovation. United Nations University World Institute for Development Economics Research, WIDER Working Paper 2020/105.
3. Muriithi, B. & Mariara, J., 2020. The Dynamics and Role of Gender in High-value Avocado Farming in Kenya. Working paper, Partnership for Economic Policy.
4. Machio, P.M., Chege, P.K., Ng’ang’a, A.M., & Njoroge, M.M., 2020. A Profile of Sustainable Development Goals in Gikindu Location, Murang’a County, Kenya. Working paper, Partnership for Economic Policy. CBMS-2020-01.

5. Machio, P.M., Chege, P.K., Ng'ang'a, A.M., & Njoroge, M.M., 2020. Social Capital and Women's Empowerment in Kenya: Case Study of Murang'a County. Working paper, Partnership for Economic Policy. CBMS-2020-02.
6. Kinuthia, B.K., 2020. *Agricultural input subsidy and outcomes for farmers in Tanzania*. United Nations University World Institute for Development Economics Research, WIDER Working Paper 2020/149.

## Corporate and Community Outreach Activities

Teaching and non-teaching staff of the School serve the community in a variety of ways.

### a) Board Membership in international/Regional Groups

- i) Partnership for Economic Policy
- ii) African Economic Research Consortium CMAP/CPP Boards

### b) Membership in Parastatal Boards

- i) Kenya Institute for Public Policy Research and Analysis
- ii) Central Bank of Kenya
- iii) Post Bank of Kenya

## Staff Portfolio

The School had 36 teaching staff and 11 non-teaching staff distributed as follows:

### Teaching Staff Portfolio

Designation	No. of Staff
Professor	2
Associate Professor	4
Senior Lecturer	17
Lecturer	12
Tutorial Fellow	3
<b>Total</b>	<b>38</b>

### Non-Teaching Staff

Designation	No. of Staff
Administrative Assistant Grade C/D	2
Senior Secretary Grade D	1
Computer Lab Assistant Grade A/B	2
Assistant Secretary Grade A	1
Documentalist Grade A	1
Documentalist Grade IV	1
Record Clerk Grade IV	1
Copy Typist – Grade IV	1
Messenger	1
<b>Total</b>	<b>11</b>

## Projections

The School projects that in 2021 both quantity and quality of output in teaching, research and community service will continue to be enhanced.

## Any Other Pertinent Information/Issue in the Year 2020

The School successfully coped with risks to service delivery posed by COVID-19 pandemic. All services continued to be offered using online platforms. The School staff were resilient and did all they could to adapt to the changed operating environment. In this regard they took part in all capacity building opportunities offered by the University to cope with the situation.

## School of Journalism and Mass Communication

### Introduction

The history of professional training for journalists in East Africa dates back to the early 1960s. The intention then was to Africanize the mass media. Between 1963 and 1968, the International Press Institute ran a series of six-month training programmes in Nairobi for journalists from English-speaking African countries. To continue of these programmes the Ministry of Education approached UNESCO in 1968 to assist in setting up a more intensive training programme integrated into the University of Nairobi. Thus, the School was opened in the University as a UNESCO regional project financed largely by funds from Denmark, Norway, and Austria to cater for students from Eastern and Central Africa. Until 1979, the School offered a two-year undergraduate programme leading to a Diploma in Journalism.

This earlier effort was mostly aimed at advanced-level secondary school leavers and journalists with little or no prior professional training. The courses gave practical training as well as relevant theoretical background in subjects such as mass communication, international studies, economics and government.

The School offers five programmes namely; Doctor of Philosophy in Communication and Information Studies, Master's Degree in Communication Studies, Bachelor of Arts in Journalism and Media Studies, Bachelor of Arts in Broadcast Production in collaboration with the Kenya Institute of Mass Communication and Diploma in Mass Communication in collaboration with Media School Africa

### Programmes Offered

#### 1. Diploma

With specializations in the following fields:-

- i) Mass Communication
- ii) Television and Radio Production

#### 2. Bachelor of Arts in Broadcast Production (B.A. Broadcast Production)

With specializations in the following fields:-

- i) Radio Production
- ii) Television Production
- iii) Film Production
- iv) Bachelor of Arts in Journalism and Media Studies

With specializations in the following fields:-

- i) Development Communication
- ii) Public Relations
- iii) Print Journalism
- iv) Broadcast Journalism
- v) Master of Arts Degree in Communication Studies

With specializations in the following fields:-

- i) Development Communication
- ii) Public Relations
- iii) Print Journalism
- iv) PhD in Communication and Information Studies

With specializations in the following fields:-

- i) Development Communication
- ii) Public Relations

## Enrolled Students per Programme

Programme	No. of Students
Bachelor of Arts in Journalism and Media Studies	71
Bachelor of Arts in Broadcast Production	53
Diploma in Mass Communication	15
Master of Arts in Communication Studies	50
PhD in Communication Studies	17
<b>Total</b>	<b>206</b>

## International Students Component

The School enrolled one international student.

## Number of Graduates per Programme

Programme	No. of Students
Master of Arts in Communication Studies	25
Bachelor of Arts in Journalism and Media Studies	51
Bachelor of Arts in Broadcast Production	4
Diploma in Mass Communication	6
<b>Total</b>	<b>86</b>

## International Links and Collaborations

The Director attended a seminar on poverty alleviation and sustainable development that was organized by the Chinese Academy of Social Sciences (UCASS) in partnership with the Kenya School of Government.

## Publications and Presentations for the Year 2020

Author*	Title	Journal	Date
Dr. Samuel Ngigi	Informality and development in Africa	Edward Elgar Publishing	2020
Dr. Michael Mwangi	Determining the context of Television serial drama viewership in Nairobi, Kenya	Editon Consortium Journal of Media and Communication Studies	Dec 2020
Dr. George Gathigi	Consumer awareness of the right to truthful advertising information in Kenyan FM Radio Stations	The International Journal of Humanities & Social Studies	Aug 2020
Dr. George Gathigi	Consumer rights observance in Kenyan FM Radio Stations	The Journal of Marketing and Consumer Research	Oct 2020
Prof. George Nyabuga	Political Showmanship: A Critical Analysis of Electoral Debates in Kenya' in Juárez-Gámiz, Julio, Christina Holtz-Bacha and Alan Schroeder (eds.)	International Handbook on Electoral Debates. Abingdon: Routledge	2020

## Consultancies Undertaken by Staff Members or the Unit

1. Dr. Samuel Ngigi partnered with the External Labour Contract as an External Collaborator to undertake impact assessment of the Covid-19 pandemic on informal sector, develop a mechanism of identifying the most vulnerable, and develop proposal on required interventions to cushion the sector from the shocks of the pandemic.
2. Prof. George Nyabuga developed a Covid-19 reporting guidelines for Article 19.
3. Prof. Hezron Mogambi and Prof. George Nyabuga are members of the Kenya Editors' Guild, in 2020, they facilitated training of journalists all over the country in counties like Kilifi, Lamu, Kisumu, Siaya, Kisii, Nyamira, Homa Bay, Kakamega, Vihiga and others.

## Staff Portfolio

Designation	No. in Position
Associate Professor	4
Senior Lecturer	6
Lecturer	6
Tutorial Fellow	5
Senior Administrative Assistant	1
Technologist	1
Records Clerk	1
Secretary	1
Computer Lab Assistant	1
Selectric Composer	1
<b>Total</b>	<b>27</b>

## Corporate Social Responsibility

1. The School partnered with the European Commission in organizing the Lorenzo Natali Media Prize. The prize rewards excellence in journalism on sustainable development issues.
2. Prof. George Nyabuga helped organize the Annual Editors' Convention held in Ciala Resort, Kisumu County, on 3th to 5<sup>th</sup> December 2020.

## Major Achievements and Strategic Projections

1. Successfully mounted online learning and examinations were seamlessly administered.
2. The School conducted online defenses for graduate students 25 of whom graduated.
3. Equipment and licensing of the TV/Radio station on course.
4. Excellent collaboration with international organizations and academic institutions
5. Strong links with the media industry
6. Attractive and competitive communication programmes

## African Women's Studies Centre

### Our Vision

A Centre of excellence committed to promoting African women's experiences and worldview in scholarship, policy, institutional and community development.

### Our Mission

To promote intellectual inquiry by and on the African women experiences through teaching, research, policy advocacy and outreach, publication and dissemination and to engage with policy makers, women's and civil society organizations, in order to bring their voice and perspectives into development and scholarship in Kenya, Africa and the world.

### Our Core Values

The Centre subscribes to the core values of the University of Nairobi. The Centre is committed to promoting the specific values below:

- i) Academic excellence.
- ii) Freedom of thought and expression.
- iii) Good corporate governance.
- iv) Corporate citizenship and social responsibility.
- v) Interdisciplinary and collaborative scholarship and research.
- vi) Professionalism in all actions and interactions.
- vii) Commitment to African women's perspectives and knowledge.
- viii) Respect for Human Rights.
- ix) Sensitivity to gender and diversity.

### Development of Curriculum

#### i) PhD in African Women Studies

As part of the core activity of AWSC which is to offer academic courses, the Centre developed Regulations and Syllabus for the Degree of Doctor of Philosophy in African Women Studies. The PhD programme aims to provide inquiry into the experiences, roles, knowledge and achievement of African women, and expose the students to basic theories and concepts related to African Women. The

goal of the programme is to enhance the students' skills and knowledge to interrogate traditional theories, philosophies and research methods so as to strengthen their capacity to generate and harness knowledge and experiences of African women and provide alternatives for bridging any gaps identified.

#### ii) Master of Arts in Women Leadership and Governance in Africa

The goal of the programme is to enhance the students' skills and knowledge to interrogate traditional theories, philosophies and research methods so as to strengthen their capacity to generate and harness knowledge and experiences of African women and provide alternatives for bridging any gaps identified and therefore produce highly qualified graduands.

#### iii) Master of Arts in African Women Entrepreneurship

The Centre also developed Regulations and Syllabus for Master of Arts in African Women Entrepreneurship (AWE). The goal of the programme is to create an opportunity for the learners to access knowledge; develop analytical skills; strengthen their creative and problem-solving skills; and promotes a responsible attitude towards women's entrepreneurship in order to contribute positively to the transformation of African economies and improve the lives of women, families and communities.

#### iv) Development of ODeL Courses in WLGA

The AWSC continued to develop the teaching modules for Open, Distance and Electronic Learning for the courses in M.A in Women Leadership and Governance in Africa (WLGA). During the year 2019/2019, AWSC has engaged its own lecturers together with those from the School of Law IAGAS, and Political Science in both teaching and development and uploading additional teaching modules.

The AWSC in collaboration with the ODeL Campus organized trainings to enhance staff and students skills in e-Learning. The staff training was held at the UON Mains Campus on January 16<sup>th</sup>, 2020. The staff were trained on the application of the various e-learning tools. The ODeL students were trained on January 21<sup>st</sup>, 2020. Their training focused on the access of the use of the various in access e-learning materials and on-line engagement both with the lecturers and with other students.

With the closure of the University as a measure to control possible spread of the corona virus all the academic staff participated in the various trainings organized by the University of Nairobi, ICT Centre, Through the trainings they acquired skills that enabled them to continue with classes on-line as well as administer the on line examinations.

## Students Enrollment

Programme	No. of Students
PhD in African Women Studies	37
Master of Arts in Women Leadership and Governance in Africa	33
Masters of Arts in African Women Entrepreneurship	1
Diploma in Women Leadership and Governance in Africa	4
<b>Total</b>	<b>75</b>

## Programme/Project Activities Implemented by AWSC

### i) Evaluation of Gender Impacts in Agriculture and Food Security

The African Women Studies Centre (AWSC) of University of Nairobi together with CARE Kenya and Kenya Agricultural and Livestock Organization (KALRO) has been carrying out a research on Evaluating Impacts of Gender in Agriculture and Food Security Outcomes in Agriculture. The Project which is in its final year started in 2018 in Kinangop Sub County, Nyandarua County and is funded by IDRC. AWSC received a budget of KES 8Million for its activities. The study aimed to test two comparable, agricultural extension approaches and measure their potential for improved gender equality, food and nutrition security. The study applied a compares the standard Farmer Field School (FFS) approach, gender-transformative Farmer Field and Business School (GT-FFBS). The overall goal to promote gender equality and women's empowerment, food and nutrition security, and economic well-being in Kinangop Sub-County, Nyandarua County. Prof. Wanjiku Kabira, the AWSC Director is The Project Advisor, while Reuben Waswa is Technical Leader.

### ii) Innovations and Exhibitions

During the Nairobi Week, the AWSC exhibited a project dubbed: *Bringing Back the Forgotten Fruits of the Kenyan Highlands*. The Project focuses on innovation, transfer and adoption of technologies for increased production and value addition of pear, plums, apricots. The Project is multi-disciplinary and brings together AWSC and Faculty of Agriculture (UON), Kenya Agricultural and Livestock Research Organization (KALRO) Horticultural Institute and the Kiambu County Government.

Temperate fruits such as pears, plums and apricots have been successfully produced in the Kenyan highlands for many decades, following their introduction into the country by colonial settlers. However, a sharp decline in the production of these temperate fruits has occurred in recent times, largely driven by a changing climate.



The Project aims to pilot new technologies and train farmers and extension workers on the new technologies that and is expected to bridge the gap between the best practices and the current farmers' practice, which is now in jeopardy; thus bringing back the forgotten fruits of the Kenyan highlands.

### iii) Current Fundraising Activities

At the beginning of this year, we got into a conversation with the Bill and Melinda Gates Foundation and other partners in relation to a program on Women's Economic Empowerment. Through AWSC, the Director convened a multidisciplinary team of scholars most of who are from the College of Humanities and Social Sciences and we presented our draft proposal to the Foundation. A smaller team made of Prof Kameri Mbote, Prof Kiriti Nganga, Dr Mary Mbithi, Dr Agnes Meroka, Mary Wambui Kanyi and myself have since then been working on the establishment of the UoN Hub to be housed by the AWSC with a funding base of USD 3 million from the Foundation. The secretariat work is being coordinated by one of our AWSC PhD students Ruth Wamuyu Gacii. Signing of the grant documents and disbursement of the initial funds have already happened

We have submitted a proposal for funding to the Norwegian Partnership for Higher Education (NORHED) to support a regional Masters and PhD program in areas of women, environment, natural resources and climate change to be coordinated by Prof. Kameri Mbote and to be housed in AWSC. Others partners for this project include Malawi, Zimbabwe and Kenya and the expected funding for UoN is KES 78 Million.

We have also submitted another proposal in response to 'A Call for Proposals by IDRC', on Growth and Economic Opportunities for Women (GrOW) East Africa. The initiative seeks to spur transformative change to advance gender equality in the world of work. AWSC will focus on Skills building and work readiness programs for women to increase entry, retention, and advancement in under-represented sectors. Specifically, the Centre's attention will be on 'road construction with an aim of evaluating the level of women's participation, any challenges they encounter and identifying strategies that work to upscale their participation in this male dominated sector'. In this project, we shall collaborate with the Department of Civil Engineering UON. We shall also work with number of organizations including the Ministry of Public Service and Gender Affairs, the National Gender and Equality Commission, as well as the National Construction Authority. The team working on this through AWSC is also a multi-disciplinary team, and the grant should be around KES 65Million.

## Collaboration with Partners

### 1. In Relation to Academic Program

We have also collaborated with other partners like CARE-Kenya who have sponsored two of our students to do their Masters projects namely Gacii Ruth Wamuyu (Reg. No. M10/10054/2018) and Janet Kimutai from School of Economics. AWSC also brought together 4 units namely, PSRI, IAGAS, School of Economics and AWSC to work together in a project funded by UN-Women. The project supported 16 MA students to do their research projects in the area of gender statistics and 15 of them successfully completed their projects and graduated in December 2019. Both the students and their supervisors were trained on gender statistics by the Kenya National Bureau of Statistics. It was very satisfying to bring together a group of students from different disciplines to work together in an area that is at the heart of AWSC. I believe that this is an area we need to explore a bit more in the future.

## 2. In Relation to Women's Issues

The Director of AWSC, chaired and took lead of the Women's Leadership Group under the MPSGAs Gender Sector Working Group. As a member of the GSWG, AWSC was represented at the following forums/meeting:

- i) Gender Sector Working Groups meeting organized by the Ministry for Public Service Youth and Gender Affairs at the Panafric Hotel, Nairobi on March 1st, 2020.
- ii) Launch of African Women's Leadership Network – Kenya Chapter organized by the Ministry for Public Service Youth and Gender Affairs at the Sarova Stanley Hotel on March 4th. 2020.
- iii) National Gender Sector Working Groups meeting organized by the Ministry for Public Service Youth and Gender Affairs at the Panafric Hotel, Nairobi on October 28th, 2019.
- iv) AWSC was also represented at other key women's forums/meeting including the following:
  - a) National Government Affirmative Action Fund (NGAAF) Public Participation on Revision of Regulations held at the Kenya School Of Monetary Studies On 23rd January 2020
  - b) Kenya Gender Budget Network (KGBN) at a meeting organized by the Collaborative Centre for Gender and Development that was held on 16th July 2019 at the Laico Regency Hotel, Nairobi.
  - c) UMMA University celebrations during the celebrations of the international day for the girl child held at the University's Main Campus in Kajiado on 11th October 2019.

## Publications

1. *Changing the Main Stream: Celebrating Women's Resilience* authored by a team of scholars from different disciplines.
2. The Director co-authored a book: *Making research work for African women* with Dr. Lanoi Maloiy. Both of these books were published in 2018/2019 academic year.
3. Center's online publication journal: *Pathways to African feminism and Development*, continues to encourage the staff and other members of the community to publish.

## Conferences

During this Covid time we have also discovered the power we have as AWSC in bringing together people for academic discussions over issues that are of concern to African women scholars. We have started webinars focusing on African feminist theories and their application within the African context. We have had one conference with 16 papers being presented. After we have covered six webinars, we will publish a special issue in this area of focus. We shall then begin another series for six months resulting in an online publication. This academic dialogue is becoming a regular event for African scholars in the continent and in the Diaspora. AWSC being the only such institution in the continent has a responsibility to shape scholarships, research and policy dialogue in the continent.

In the first webinar, we had over 150 participants. Over 50 of these were Nigerians scholar from different universities while others comprised of scholars from different parts of Europe and USA. We had an African American lecture from Harvard University who has been participating in these webinars. In July, 2020, AWSC had 192 participants attending the webinar. We have also participated in the University's Research Week as a center. Our seminars have been very well attended both at the local and international level.

During the University of Nairobi Research Week, AWSC held the second Internal Conference on the Status of Women in Africa. A total of 16 presenters from different countries presented papers on diverse issues affecting African Women.

## Research and Policy Program

The director has promoted the continuous research and policy dialogue within AWSC. We continue to offer research and analysis of policies in support of areas related to women. In 2018/2019 we have presented through public participation our recommendations to the Senate and Parliamentary relevant committees including a presentation done on 9/7/2020 to the Senate Standing Committee on Justice, Legal and Human Rights, on the constitution of Kenya (Amendment) Bill (Sen. Bills No. 16 of 2019); and The Representation of Special Interests Groups Laws (Amendment) Bill (National Assembly Bills No. 52 of 2019). During this presentation, one of our graduate assistants Ms Mary Wambui Kanyi was hailed by many of the participants for her good presentation. Most recently the Cabinet Secretary Ministry of Gender Affairs has requested the center to assist in providing information that would be useful for negotiations for the best institutional framework for the implementation of the Affirmative Action Funds. Currently a team of researchers is working on this. The center is becoming an information hub for women related issues.

Through the *Women's Policy Watch Programme* coordinator, Ms. Mary Wambui Kanyi, AWSC influenced the following national policies/bills through gender audit and submission of written memoranda recommendations/proposals to the relevant bodies:

- i) Public Finance Management (Amendment) (No. 2) B 2020
- ii) Public Finance Management (Biashara Kenya Fund) Regulations, 2020
- iii) Reproductive Healthcare Bill, 2019 and submitted recommendations to the Senate
- iv) The Representation of Special Interest Groups Laws (Amendment) Bill 2019 submitted to the Senate by AWSC in collaboration with the Women's Leadership Gender Sector working group (GSWG) committee in June 2020
- v) Kenya National Commission on Human Rights Bill (National Assembly Bills No. 1 of 2020) which sought the merger of KNHC and the National Gender and Equality Commission, to The Parliamentary Constitutional Implementation Oversight Committee of the National Assembly in June 2020
- vi) Negotiated Democracy and women's participation in leadership draft policy developed by Coffey International (July 2019).
- vii) Economic policy recommendations for the Financial year 2020/2021
- viii) AWSC plans to influence, at last four policies/bills annually, to ensure they mainstream gender and women's concerns.

## Centre for Advanced Studies in Environmental Law and Policy

### Introduction

The Centre for Advanced Studies in Environmental Law and Policy (CASELAP) is a Faculty – Level Unit that offers focused programmes aimed at providing sustained and advanced level capacity building in environmental governance at national and regional levels. The Centre came to be on the 20th of September 2007 when the Council of the University of Nairobi approved Statute provisions for its establishment, completing a process initiated by Faculty (now School) of Law and the Institute for Development Studies, both within the College of Humanities and Social Sciences, towards a postgraduate centre of excellence for capacity building in environmental governance, comprising environmental policy, law and diplomacy.

Over the years, CASELAP has dedicated to undertaking research and advanced level capacity development in environmental governance through innovative and market-driven programmes that addresses national, county and industry needs by promoting sustainable patterns of production and consumption, hence, ensuring global competitiveness, conservation of natural capital, and social development key to ensuring sustainability. Faculty at CASELAP is an interdisciplinary team of scientists, economists, lawyers and social scientists with a strong capacity to support the development of appropriate regulatory frameworks that integrate principles sustainable development in all sectors of the economy.

CASELAP, through its programmes, fills a cognate gap in governance that is key to ensuring sustainable development. CASELAP continues to attract a pool of international students owing to the unique multidisciplinary nature of its programmes.

### Programmes Offered

- i) Master of Arts in Environmental Policy
- ii) Master of Arts in Environmental Law
- v) Each of the Masters programmes runs for a period of four semesters, while the Doctorate programmes run for six semesters, each.
- iii) Doctor of Philosophy in Environmental Policy
- iv) Doctor of Philosophy in Environmental Law

### Enrolment per Programme

The current enrolment numbers stand as follows:

Programme	Total
PhD. Environmental Policy	64
PhD. Environmental Law	42
MA Environmental Policy	73
MA Environmental Law	123
<b>Total</b>	<b>302</b>

### International Students

CASELAP admitted seven (7) new international students into their programmes.

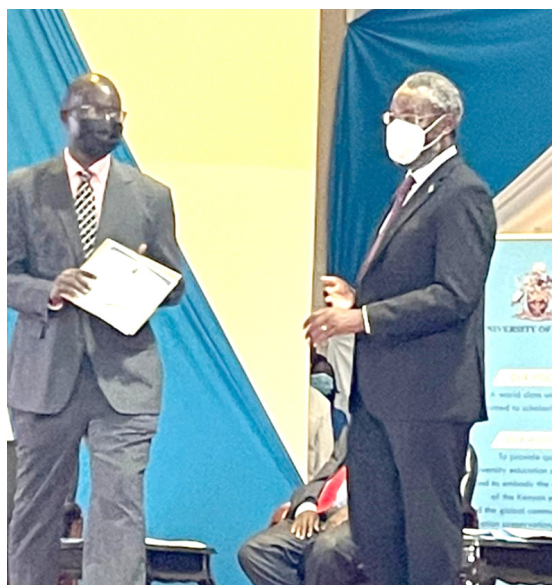
## Number of Graduates in 2020

Programme	No. of Graduates
PhD Environmental Policy	1
PhD Environmental Law	2
MA Environmental Law	4
MA Environmental Policy	5
<b>Total</b>	<b>12</b>

## Strategic Issues

1. To increase the number of graduate throughput.
2. Establishment of a CASELAP journal
3. To increase the numbers of international students
4. To promote the embedding of blended learning beyond the Covid era
5. Expansion of the research portfolio
6. Enhance visibility and strategic positioning as a center of excellence on sustainable development studies

## Major Achievements for the Year 2020



2019/2020 Financial Year  
Performance Contracting.



PhD Environmental Law  
graduands



PhD Environmental Law graduands

1. Pioneered and led the University of Nairobi, and the nation at large, in administration of online examinations, ensuring continuity of teaching and learning despite the constraints brought about by Covid-19.
2. Attained the 1<sup>st</sup> position in the category of the overall best performing unit of the University of Nairobi, and 1<sup>st</sup> position under the category of Institutes and Centres, for the 2019/2020 Financial Year Performance Contracting.
3. Graduation of the first two PhD Environmental Law graduands : Dr. Wambua Kituku and Dr. Phillip Olale

4. Review of the curricula, in the four programmes offered at CASELAP and presented to the College Academic Board
5. Increase in research grants to the Centre to the tune of 36M.
6. Continuing cutting edge research on monitoring air pollution from vehicles and the impact it has on human health.
7. Increased PhD graduation numbers

### Corporate and Community Outreach Activities

Dr. Collins Odote was appointed by the Management Board of KESRA/ATCR to be a reviewer of the African Tax and Customs Review Journal

Dr Kariuki Muigua was appointed by the Cabinet Secretary for Environment and Forestry, to be a member of the National Environmental Tribunal for a period of three (3) years – Gazette notice number 534

Through the GEOHub project, environmental policy clinics were held to sensitize selected communities on existing environmental policies touching on environmental issues such as air pollution that are affecting them.

### Staff Portfolio

Name	Position
Dr. Collins Odote	Director
Prof. Nicholas Oguge	Professor
Prof. Richard Mulwa	Professor
Prof. Stephen Anyango	Professor
Dr. Elvin Nyukuri	Lecturer
Ms Clarice Wambua	Tutorial Fellow

### International Links and Collaborations

1. Addis Ababa University (Ethiopia)
2. Amnesty International (UK)
3. Amnesty International Africa Regional Office
4. Association of Environmental Law Lecturers in African Universities (ASSELAU)
5. Bahir Dar University (Ethiopia)
6. Birdlife International
7. Centre for Environmental Rights (South Africa)
8. CEPIL (Ghana)
9. Environment for Development
10. Family Health International
11. Freedom of Expression Hub (Uganda)
12. Initiative for Strategic Litigation In Africa
13. Institute of Spatial Planning , TU Dortmund University (Germany)
14. International Research Institute for Climate and Society (IRI) Columbia
15. Makerere University

16. Mzumbe University (Tanzania)
17. Nasarawa State University (Nigeria)
18. Nelson Mandela Institution of Science and Technology (Tanzania)
19. Open Society Foundations
20. Oxfam International HECA Region
21. Plan International (UK)
22. The Federal University of Technology (Nigeria)
23. The Global environment and Occupational Health – Eastern Africa
24. The Nile Basin Initiative
25. Transparency International
26. TU Dortmund university, Institute of Spatial Planning
27. United Nations Environment Programme
28. United Nations Information Portal on Multilateral Environmental Agreements
29. Univerisdad de Jos Andes (Columbia)
30. University of Free State (South Africa)
31. University of Gothenburg (Sweden)
32. University of Helsinki (Finland)
33. University of Ibadan (Nigeria)
34. University of Malawi
35. Vrije Universiteit Amsterdam

## Publications for Year 2020

1. **Collins Odote** and Karuti Kanyinga (2020) *Election Technology, Disputes, and Political Violence in Kenya*. Journal of Asian and African Studies
2. Wambua Kituku, **Collins Odote**, Charles Okidi & Patricia Kameri-Mbote (2020); *Sectoral Coordination in Kenya's Municipal Solid Waste Management: A Horizontal Assessment* Law Environment and Development Journal. Pp 55-75
3. **Kariuki Muigua** (2020) *Africa's Agenda 2063; What is in it for Kenya?* Journal of Conflict Management and Sustainable Development
4. **Collins Odote**, Kanyinga Kanyinga (2020). *Election Technology, Disputes, and Political Violence in Kenya*. *Journal of Asian and African Studies*. doi:10.1177/0021909620933991.
5. **Kariuki Muigua** (2020) *Enhancing the Court Annexed mediation in Kenya*. Alternative Dispute Resolution
6. Wambua Kituku, **Collins Odote**, Charles Okidi, Patricia Kameri- Mbote (2020) “Towards Regulatory Coherence or Fragmentation? Assessing Environmental Integration Regulation of Municipality Waste Management in Kenya”, East Africa Law Journal. pp. 195-218.
7. Philip Olale, **Collins Odote**, **Kibugi Robert** (2020). *Integrating Marine Spatial Planning in Governing Kenya's Land-Sea Interface for A Sustainable Blue Economy*. 16(2) Law, Environment and Development Journal. pp. 178-194.
8. **Kariuki Muigua** (2020) *Redefining Development in Kenya – Reflections and Lessons from the Coronavirus Disease (Covid-19) Pandemic*. Journal of Conflict Management and Sustainable Development
9. Philip Olale, **Collins Odote**, **Robert Kibugi** (2020). *Leveraging integrated spatial planning for sustainable regulation of coastal tourism activities in Malindi town, Kenya*. Western Indian Ocean Journal of Marine Science. 19. 63-76. 10.4314/wiojms.v19i1.6.

10. Kituku Wambua, **Collins Odote**, Charles Okidi, Patricia Kameri Mbote(2020); “*Entrenching Waste Hierarchy for Sustainable Municipal Solid Waste Management in Kenya*”. 11(2) The Journal of Sustainable Development Law and Policy.
11. **Kariuki Muigua** (2020) *Looking into the Future: Making Kenya a Preferred Seat for International Arbitration*. Alternative Dispute Resolution Journal.
12. **Collins Odote** (2020). “Human Rights-based Approach to Environmental Protection: Kenyan, South African and Nigerian Constitutional Architecture and Experience” in Michael Addaney and Ademola Oluborode Jegede(eds). *Human Rights and the Environment under African Union Law*. Cham, Palgrave Macmillan. [https://doi.org/10.1007/978-3-030-46523-0\\_15](https://doi.org/10.1007/978-3-030-46523-0_15). ISBN 978-3-030-46522-3.
13. **Collins Odote** (2020). “The 2013 Elections and the Peace Narrative (2013– 2015)” in Nic Cheeseman, Karuti Kanyinga, and Gabrielle Lynch(eds). *The Oxford Handbook of Kenyan Politics*. Oxford, Oxford University Press.DOI: 10.1093/oxfordhb/9780198815693.013.6. .

### Conferences attended and Presentation Papers Produced

Conference	Theme	Date
Embassy of the Republic of Korea	Partnership for Green Growth (P4G)	January 22 <sup>nd</sup> 2020
CASELAP The 3rd Symposium on Climate Change Adaptation in Africa	Strengthening the Capacity of African Countries to Handle the Challenges of a Changing Environment	23 <sup>rd</sup> – 24 <sup>th</sup> January 2020
Kenya’s Bid to the United Nations Security Council for the Term 2021 – 2022	Global Political Trends and Implications for Peace and Security in Africa	25 <sup>th</sup> – 31 <sup>st</sup> January 2020
Drylands Learning and Capacity Building Initiative	Dialogue on Community Land Act Implementation Four Points by Sheraton	27 <sup>th</sup> and 28 <sup>th</sup> February 2020
African Economic and Research Consortium	Roundtable on Regional and National Economies and Leaving No One Behind	March 13, 2020
University of Nairobi	Scoping Study on Sources of Water Pollution from Multiple Chemicals in Kenya’s Lake Victoria	March 24 <sup>th</sup> 2020
NLC Reflection and Strategic Visioning Session	Landscape of Operations for the NLC II- 2020-2026	16 <sup>th</sup> April 2020
NLC Reflection and Strategic Visioning Session	Swot analysis for NLC Commissioners	16 <sup>th</sup> April 2020
Thunderbird School of Global Management	Africa Universities Online: Challenges & Opportunities	May 8, 2020
DAIMA	The Role of Green Spaces and Emerging Trends in Cities	May 21, 2020
UoN Senate Training on Disability Mainstreaming	Online Learning as A Tool for Disability Mainstreaming: Lessons for University of Nairobi	9 <sup>th</sup> June 2020



UoN Disability Mainstreaming Committees Training Workshop	Online Learning as A Tool for Disability Mainstreaming at University of Nairobi: Roles of Disability Committees	11th June 2020
LSK Webinar on Contemporary Laws and Policies-Land and Environment	The More Things Change the more they remain the same: Kenya's land evictions and challenges for the poor	12th June, 2020
Kenya Association of Manufacturers	Sectors perspectives on Accelerating a Circular Economy in Kenya.	7 <sup>th</sup> September, 2020
Metropol TV	Back to School: Are Learning Institutions Ready?	24 <sup>th</sup> September 2020
Law Society of Kenya	Securing Constitutionalism and The Rule of Law: Reflection on 10 Years of The Kenyan Constitution	12 <sup>th</sup> – 16 <sup>th</sup> October, 2020
High Level Webinar by ALSF and University of Nairobi	Environmental Protection During Contracting for Mining, and Petroleum Projects in East Africa	14 <sup>th</sup> October 2020
URAIA, and the Elections Observations Group	From the Handshake to Building Bridges Initiative	2 <sup>nd</sup> November, 2020
Kenya College of Accountancy	Positioning Yourself For the Future	24 <sup>th</sup> November, 2020
The County Assemblies of Kenya	Analysis of report of implementation of BBI to a united Kenya taskforce report	December , 2020
International Commission of Jurists	Jurists Take on BBI: Kenya at crossroads?	8 <sup>th</sup> December, 2020
The Anglican Church of Kenya		8 <sup>th</sup> December, 2020

## Ongoing Research Activities

1. Scoping Study for research project on water pollution from multiple chemicals in Kenya, with the University of Gothenburg FRAM Centre for Future Chemical Risk Assessment and Management.
2. GCRF Plastics Pollution Governance Framework Network Project; UK Research and Innovation University of Surrey Plastics Pollution Governance Network in six countries in Africa namely: Ethiopia, Kenya, Malawi, Rwanda, Tanzania, and Uganda.
3. NEWAVE Consortium; Marie Skłodowska-Curie Innovative Training Network (ITN) European Training Network - Next Water Governance

## Projections

1. Increase the number of Graduands to twenty(20)
2. Finalise the approval of the revisions to the Four CASELAP Programmes and mount them from September, 2021
3. Attract One new Grant
4. Increase the publications by staff
5. Revamp the website of the centre
6. Organise a webinar on environmental Governance as part of UoN@50 celebration.

## Centre for Translation and Interpretation

### Introduction

The Centre for Translation and Interpretation (CTI) was established in 2010 as a collaborative initiative between the University of Nairobi, the United Nations, the European Union, and the African Union. The only one of its kind in the region, the Centre is a product of what was earlier dubbed “the African Project”, whose objective was to establish postgraduate training in translation, conference interpreting and public service interpreting through the creation of a Centre of Excellence on the African continent.

The University of Nairobi was selected to be the Lead University in a group of core universities representing the main different linguistic regions of Africa, namely: Anglophone, Francophone, Lusophone and Arabophone Africa. The CTI was the first to be established within this framework of the “African Project”. Later on, five other Centres were established, forming a caucus of the Pan-Africa Masters in Conference Interpreting and Translation (PAMCIT).

The core functions of the CTI include training of: Translators, Conference Interpreters and Community Interpreters. The Centre is also mandated to do research and to disseminate knowledge through publications. It also has capacity to do consultancy through servicing of conferences, and providing community language mediation support, translating of documents, offering of tailor-made courses in language development, public speaking, personal presentation, grooming and personal, protocol induction, communication skills and language enhancement, among others.

The Centre has modern training facilities with state-of-the-art interpreting equipment, interpreting booths, a modern library and a well-equipped computer laboratory.

Due to regional integration in Africa and the growth of regional and international organizations within the region and overseas, there is a growing demand for translators and interpreters, with relevant language combinations to service the increasing number of meetings, conferences and documentation initiatives.

Graduates of this Centre therefore find work and opportunities to practice in this ever-growing market within the region and abroad.

Director of the Centre is Prof. Jayne Mutiga, BA, MA (Nairobi) Cert. in Comm. Skills (Lancaster, UK), PhD, (Nairobi)

### Programmes Offered

1. Diploma in Community Interpreting
2. Master of Arts in Translation
3. Master of Arts in Interpretation
4. Doctor of Philosophy in Translation
5. Doctor of Philosophy in Interpretation

Diploma and the two Masters programmes runs for a period of four semesters, while the Doctorate programmes run for a minimum of six semesters and a maximum of twelve semesters.

#### Vision

A world class Centre of excellence committed to providing quality training, research and practice in translation and interpreting.

#### Mission

To build human capacity and provide services in the fields of translation, and conference and community interpreting through training, research and consultancy.

## Enrolled Students

Programmes	Total
Doctor of Philosophy in Interpretation	2
Doctor of Philosophy in Translation	7
Master of Arts in Interpretation	8
Master of Arts in Translation	11
Diploma in Community Interpretation	21
<b>TOTAL</b>	<b>49</b>

## International Students

The Centre has eight international students undertaking different programmes

## Strategic Issues

The following strategic issues have enabled the Centre to deliver its objectives.

1. Quality and market-driven academic programmes
2. Efficient and effective management of staff, equipment and facilities.
3. Efficient and effective teaching, coaching and mentoring of students
4. Contribution of knowledge, development and innovation to industry
5. Creation and enhancement of positive competitiveness a cutting-edge culture
6. Creation of a friendly and caring working environment
7. Goal-setting and excellent time management

## Major Achievements

1. Launch of Diploma in Community Interpreting
2. Installation of **‘State-of-the-Art’** digital interpretation machines
3. Created a video conferencing laboratory
4. One of the Centre’s lecturers graduated with a PhD in Translation
5. Graduated three students with a Master of Arts in Interpretation
6. Secured a twenty full scholarships grant for twenty diploma students. The grant is sourced from African Universities Network for Higher Education in Emergencies (AUNHEiE). Grant to last for two years and is renewable upon production of results
7. Admitted twenty one students in Diploma in Community Interpreting, with twenty of them fully sponsored.

## Corporate and Community Outreach Activities

Mr. Josephat Gitonga a Tutorial Fellow at the Centre for Translation and Interpretation represented the Department in distribution of Masks, food and clothes to Kibera residents, Nairobi together with the University scouts.

## Staff Portfolio

Position	No. of Staff
Professor (Visiting)	1
Associate Professor	1
Tutorial Fellow	2

## Projections

1. The Centre's projection is to train professional translators and conference interpreters for the world market.
2. Produce qualified students fully equipped to take the competitive language examinations of the UN and to compete for jobs in the International market on equal footing with those trained in Europe.
3. We seek to provide quality education in interpretation training to produce qualified competent and competitive graduates who can meet the sustainable global development needs.
4. The number of immigrants and linguistic heterogeneous spaces of interaction continues to increase drastically thereby making mediation inevitable and interpretation a more needed tool to enable communication to take place in linguistic and cultural diversity. Therefore, to train public service interpreters is of great value.

## Research Activities/Publications

The CTI staff have continued to be engaged in research activities in their areas of specialization in collaboration with researchers from other universities. The results of these activities are reflected in publications in refereed journals as indicated here below.

1. **Jayne Mutiga:** Niche Markets for the Mother Language Enterprise: An Insight to the Production and Distribution of Linguistic Resources in Kenya Technical address delivered at the International Mother-language Conference held at Masinde Muliro University of Science and Technology on February 19-21, 2020
2. **Rufus Karani Munyua, et al:** Exploring Equivalence as measure of Skopos in translation of Software products the Case of English to Kiswahili – **International Journal of Bantu Linguistics.**
3. **Rufus Karani Munyua, et al:** Software Localization: An Exploration of the Problems Encountered by Localizers in Transferring Messages from English to Kiswahili. – **Mwangaza wa Lugha**

## International Links and Collaborations

1. MoU signed between University of Nairobi and Salamanca University, Spain
2. Collaboration between the University of Nairobi, the United Nations, the European Union, and the African Union.
3. MoU renewed between University of Nairobi and the Pan African Masters in Conference Interpreting and Translation (PAMCIT)
4. Collaboration between University and the UN Radio-Kiswahili.

## Institute of Anthropology, Gender and African Studies

### Introduction

The Institute of Anthropology, Gender and African Studies (IAGAS) *formerly* Institute of African Studies at the University of Nairobi has been in existence since 1970. At its inception, the Institute was mandated to carry out research into socio-cultural issues including research in the field of African prehistory and history; musicology and dance; traditional and modern arts crafts; religion and other belief systems. This became its main focus of research for close to 15 years. In 1986, the Institute's mandate was expanded to include training in Anthropology and in 1999 a Gender and Development Studies programme was introduced.

The Institute staff teach and conduct research in the various fields of humanities and social sciences including archaeology; heritage management; museology; language, culture and society; cultural studies; gender and development studies; medical anthropology; development anthropology; anthropology of children and childhood, demographic anthropology and anthropology of conservation. The Institute continues to partner with similar institutions for purposes of research collaboration and academic exchange. As a result the Institute receives senior research scholars and students from all over the world, who seek affiliation. These affiliations provide avenues for exchange of ideas with staff and students of the Institute.

### Courses Offered

Academic programs at IAGAS together with entry requirements are summarized below. Applicants must fulfill the general University of Nairobi entry requirements.

1. BA in Anthropology
2. BA in Gender and Development Studies
3. MA in Anthropology
4. MA in Gender and Development Studies
5. Doctor of Philosophy in Anthropology
6. Doctor of Philosophy in Gender & Development Studies

### Student Enrolment

Programme	No. of Students
B.A. Anthropology	377
B.A. Gender & Development	38
M.A. in Anthropology	27
M.A. in Gender & Development Studies	52
PhD. in Anthropology	15
<b>Total</b>	<b>509</b>

### International Students

The Institute continues to attract international students in its programmes. In the 2020 calendar year, we hosted four foreign students who enrolled in the undergraduate courses of the Institute. At the postgraduate level we hosted four students from Germany, Denmark, Ethiopia, Somalia, Uganda, Nigeria, Liberia, Tanzania and Sudan. The Institute has fourteen (14) international students.

## Graduates in 2020

Programme	No. of Graduates
BA. Anthropology	74
BA. Gender & Development Studies	8
MA. in Anthropology	2
MA. in Gender & Development Studies	5
<b>Total</b>	<b>89</b>

## International Links and Collaborations

1. The Institute seeks to forge linkages with other institutions in the South as well as in the North. We have active MoUs with UNFPA, Kyoto University, Japan, Bryn Mawr College, USA, University of Bergen, Norway, University of Southern Denmark, Yokohama National University, Japan, University College Dublin, National University of Ireland, Dublin and Steno Diabetes Health Promotion, Denmark.
2. In addition, the Institute also receives research scholars and students. These affiliations provide avenues for exchange of ideas with staff and students of the Institute.
3. Africa Oxford Initiative Research Development Awards Project – Collaboration Agreement between the Chancellor, Masters and Scholars of the University of Oxford and University of Nairobi.
4. Collaborative Agreement between School of Oriental and African Studies (SOAS), University of London and IAGAS, University of Nairobi to host the Global Conference on Linguistic Anthropology in 2021.

## Publications/Consultancies

1. The Institute publishes Mila as its flagship journal which is published once every year since its inception in 1999.
2. Martin M Gazimbi, Monica A Magadi, **Washington Onyango-Ouma**, Elizabeth Walker, Rosemary B Cresswell, Margaret Kaseje and Charles O Wafula, 2020. Is polygyny a risk factor in the transmission of HIV in sub-Saharan Africa? A systematic review African Journal of Reproductive Health, 24(4):198-212.
3. W. Onyango-Ouma and J. Aagaard-Hansen. 2020. Dholuo Kincepts in Western Kenya. **Studies in African Linguistics**, 49 (2):304-320.
4. **Bukachi, S.A.**; Mburu, C.M. and Bett, B.K. (2020) Understanding Sociocultural Dynamics to Enhance Control of Rift Valley Fever (RVF) Epidemics in Kenya, SSHAP Case Study Issue 11, UNICEF, IDS and Anthrologica.
5. *Salome A. Bukachi, Dalmas O. Omia, Mercy M. Musyoka, Faith M. Wambua, Mariah P. Ngutu (University of Nairobi), Marina Korzenevica (University of Oxford).*2020. **Can Social capital quench thirst? Evidence from rural Kenya.** Available at <https://reachwater.org.uk/can-social-capital-quench-thirst-evidence-from-rural-kenya/>

## Newspaper, Radio and TV features

1. Bukachi SA: Impact of COVID-19 on the community: Radio talk on Jambo Kenya – Radio Citizen 3<sup>rd</sup> Dec 2020
2. Bukachi SA: Discussant about Healthcare and Health Governance during COVID-19 on Day Break Citizen TV 16<sup>th</sup> December 2020
3. Bukachi SA: Anthropology and Health. Presentation made on 9<sup>th</sup> September 2020 to the Pan African Women in Health, online seminar Series

4. Bukachi SA: Interviewed for a Newspaper feature on Eve magazine of the Saturday Standard newspaper:7 (COVID) habits of highly successful women. 30<sup>th</sup> May, 2020
5. Bukachi SA: Talking Africa- 23<sup>rd</sup> April 2020 (Africa's response to COVID-19 Pandemic). Radio on interview conversation with Talking Africa Radio Station in London 23<sup>rd</sup> April 2020
6. Omu Anzala, **Salome Bukachi**, Marybeth Maritim, Moses Maskia, Joy Kiiru, Pamela Godia.2020. Public Forum on COVID-19, University of Nairobi.

## Consultancies

1. Dalmas Omia-2020: Principal Investigator: Gender Vulnerability and climate variability, a case of small-holder agro-pastoralists in Baringo County Kenya. A joint project of Makerere University and University of Nairobi under the Norwegian Waso Project.
2. Dalmas Omia-2020-Lead consultant; Gender analysis to inform Capacity strengthening for World Food Programmes in the four targeted Counties: Baringo, Marsabit, Samburu and Wajir in Kenya.
3. Dalmas Omia-2020. Gender Expert: Gender Equality in Leadership and Decision-making. UN-Women, Kenya Office and KIPPRA-Wide Survey, 2019-2020.
4. Salome Bukachi (Dec 2019 – June 2020) Development of a Strategy for enhancing women's participation in PhD programs and research in Applied Sciences, Engineering and Technology (ASET fields at African Universities. A consultancy under ICIPE's Regional Coordination Unit of the Regional Scholarship and Innovation Fund (RSF).
5. Geoffrey Muga 2020. Lead Consultant for Christian Blind Mission: Assessment of the Quality of Services of the Association of the Physically Disabled Kenya (APDK) in Western and Coast Hubs. October-November 2020.
6. Geoffrey Muga 2020. Lead Consultant United Disabled Persons of Kenya (UDPK): Audit of the Impact of the Constitution of Kenya 2010 on Persons with Disabilities. November-December.
7. Geoffrey Muga 2020. Team leader Baseline Study for Norwegian Church Aid S. Sudan Programme. November – December 2020.

## Staff Portfolio

Designation	No. of Staff
Professors	2
Associate Research Professors	5
Senior Research Fellows	2
Research Fellows	6
Junior Research Fellow	1
Senior Assistant Registrar	1
Administrative Assistant	1
Senior Secretary D	1
Draughtsman C/D	1
Technologist A/B/C	1
Clerk III/IV	2
Driver – A	1
Cleaner II	1
<b>Total</b>	<b>25</b>

## Appointments

1. **Prof. W. Onyango-Ouma** was appointed the Director, Institute of Anthropology, Gender and African Studies.
2. **Prof. Salome Bukachi:** Appointed to the REACH (consortium led by the University of Oxford is implementing a seven-year research programme on “Improving Water Security for the Poor”) Global Advisory panel 2018-2020
3. **Dr Dalmas Ochieng Ombia:** Appointed member – Global Technical Advisory Group, George Washington University, US: Global Women Institute on Building Gender Based Violence in Conflict and Refugee Settings.
4. **Dr Dalmas Ochieng Ombia:** Appointed Board Member : Emerging Leaders Foundation, Kenya
5. **Dr Geoffrey Muga:** Appointed on the Board of childFund Kenya
6. **Bukachi SA, (2020).** Listed as one of the Top 500 authors, by Scholarly Output in Kenya over the period 2014 to >2019 and released in 2020. Featured in the Scival list of top 500 authors. Was number **218 out of 500** top Kenyan Researchers.
7. **Bukachi SA, (2020).** Chair of Plenary session 2: Intersectionality in African research: Findings from a systematic literature review, under the 18<sup>th</sup> Gender Summit (GS18) held in Nov 2020.
8. **Bukachi SA, (2020).** Chair of the Food Safety thematic abstract-driven session at the Research Conference of the Agriculture, Nutrition & Health Academy (ANH) Academy Week Online 2020 Conference 30 June 2020
9. **Bukachi SA, (2020).** Appointed Member of the Ad-hoc Committee for the TDR and WaSH/WHO to support activities to control water-related infectious diseases with a special focus on vector-borne diseases (2020)

## Research Affiliates

Dr. Elizabeth Cooper will be conducting a research for a period of 2 years 6 months. Dr. Cooper will be conducting research on “Students’ Ideas and Practices of Collective action in Kenyan Secondary Schools”.

## Research Activities and Funding

1. CEDIL PROJECT – Structural Estimation of Spatial Spillover Effects of Cash Transfers. Amount: GBP 76,973.09
2. Sustainable Governance of Food Systems in South America and Africa: A Case Study of Bolivia and Kenya. – Funded by Swiss Agency for international Development and Cooperation and Swiss National Science Foundation.
3. Gender inclusive vaccine ecosystem: enhancing distribution and delivery systems for Newcastle disease (NCD) and contagious Caprine Pleuropneumonia (CCPP) among smallholder farmers [The GIVE Project]. Funded by: International Development Research Centre (IDRC) & Bill & Melinda Gates under the Livestock Vaccine Innovative Funds (LVIF) Projects. Amount: CAD 1,500,000.
4. Drivers of demand for animal-source foods in low-income informal settlements in Nairobi, Kenya Funded by: Drivers of Food Choice (DFC) Competitive Grants Program. Amount: USD, 269,989.
5. Gender Analysis of Vulnerability and resilience to household water insecurity in Kitui County, Kenya: Implications for Institutional and Policy response in the face of Climate variability: Funded by: REACH programme: the UK Department for International Development (DFID) (Aries Code 201880). Amount: GBP, 50,000.



## Conferences Attended and Presentations

1. **Dr Khamati Shilabukha** presented a paper entitled “Identifying Documentary sites, monuments and indigenous knowledge at the Kenya National Commission for UNESCO”
2. **Dr Humphrey Ojwang** gave a public lecture at mama grace Onyango social Centre in Kisumu County, Kenya Title: Pedagogy of African women’s indigenous knowledge in Food Security.
3. **Bukachi SA**, Nyamongo I., Chemuliti J., Waweru K., Omia D., Ogolla K., Kiganane L., Ngutu M., Okinda O., Anyona D., Kimani W., Mbithe M., Nzioki A., Wanjiru S., Simiyu A., Nyaboke (2020). Gender inclusive vaccine ecosystem: enhancing distribution and delivery system for Newcastle disease & CCPP among smallholder farmers [GIVE project]: Preliminary results LVIF Virtual Annual Learning Meeting IDRC LVIF Virtual meeting, 3rd - 5th June, 2020
4. Paula Domínguez-Salas, Aurélie Lépine, **Salome Bukachi**, Suneetha Kadiyala, Mariah Ngutu, Juan Segura Buisán, Ann Wambui.(2020). Drivers of demand for animal-source foods in low-income households in Nairobi: A qualitative perspective. Presentation made at the Research Conference of the Agriculture, Nutrition & Health Academy (ANH) Academy Week Online 2020 Conference 30 June 2020
5. Bukachi SA, Nyamongo I., Chemuliti J., Waweru K., Omia D., Ogolla K., Kiganane L., Ngutu M., Okinda O., Anyona D., Kimani W., Mbithe M., Nzioki A., Wanjiru S., Simiyu A., Nyaboke L. 2020 Gender inclusive vaccine ecosystem: enhancing distribution and delivery system for Newcastle disease & CCPP among smallholder farmers [GIVE project]: progress on project implementation joint projects meeting IDRC Joint Project meeting IDRC offices, Nairobi, 20th January, 2020.
6. **Bukachi SA, (2020)**. Gender inclusive Vaccine Ecosystem Among smallholder farmers in Makueni County, Kenya. Presentation made in the Plenary session 7: Improving gender equity in economic and technological inclusion of women and underserved groups in agriculture-oriented services. Online 18<sup>th</sup> Gender Summit (GS18) November, 2020
7. **Dalmas Omia**. 2020. Community of Practice Workshop: IDRC-LVIF: Virtua: Identifying gender responsive entry models: Linking SheVax+ data analysis and results to interventions” 24<sup>th</sup> Nov. 2020.
8. **Dalmas Omia**. 2020. Community of Practice Workshop: IDRC-LVIF: Gender Transformative Materials for training and research”. 27<sup>th</sup> October, 2020.
9. **Dalmas Omia**. 2020. Community of Practice Workshop: IDRC-LVIF: Project Level Women’s Empowerment”. 28<sup>th</sup> July, 2020.
10. **Dalmas Omia**. 2020. Outcome Mapping Training on Gender Inclusive Vaccine Ecosystem project., Jan. 2020
11. **Dalmas Omia**. 2020. IDRC-LVIF Nutritional Assessment Training on Gender Inclusive Vaccine Ecosystem, 21<sup>st</sup> September, 2020.
12. **Dalmas Omia**. 2020. Women Empowerment in Livestock Index (WELI) training. February 8<sup>th</sup>, 10<sup>th</sup> and 12<sup>th</sup>, 2021.
13. **Dalmas Omia**. 2020. GAAP2 Webinar on Ghana small-scale irrigation project. September, 18<sup>th</sup> 2020.
14. **Dalmas Omia**. 2020. GAAP2 Webinar on Pro-WEAI lessons from their Burkina Faso project. September, 30<sup>th</sup> 2020.
15. **Dalmas Omia**. 2020. Gender inclusive vaccine ecosystem: enhancing distribution and delivery systems for Newcastle Disease (ND) and contagious caprine pleuropneumonia (CCPP) among smallholder farmers. Training workshop on WELI survey at the fort hotel, Makueni County (20<sup>th</sup> – 23<sup>rd</sup> July, 2020)
16. **Dalmas Omia**. 2020. Webinar on Leveraging on Social Capital for Household Water Security in Rural Kenya. REACH-OXFORD. September, 1 2020.

## Training Attended

1. Mr. David Kengere Sereti attended training on Governance Auditors Accreditation course in November, 2020.
2. Dr Khamati Shilabukha attended training hosted by Kenya National Commission for UNESCO on the Sensitization on the development of national register and documentary heritage.

## Institute of Diplomacy and International Studies

### Introduction

The Institute of Diplomacy and International Studies is part of the College of Humanities and Social Sciences which specializes in the teaching of International Studies and Diplomacy and conducting research. It offers training both at undergraduate and postgraduate level to professionals in the realm of International Studies and Diplomacy. The Institute is housed in the first floor of 844 Building at the Main Campus just behind the Jomo Kenyatta Memorial Library.

The mandate of the Institute is to conduct research in Diplomacy and International Studies and also train professionals in those areas and related proficiency.

Like other public entities, IDIS is faced with challenges which the administration continues to systematically address within the context of the Institute's vision and mission. A major tenet that we espouse is our firm commitment to quality service delivery that is hinged on observance of the rule of law, skilled human resource, hard work, transparency, accountability, fairness and timely service delivery in all our activities.

The Institute adheres to the tradition of excellence in teaching, research, and scholarship, consultancy and community service, good governance and management.

### Programmes Offered

IDIS programmes are in high demand due to their high quality and relevance. The Institute provides a user friendly environment that is sensitive to the needs of the students and attracts high caliber students from all over the African continent and outside Africa thus providing its students with a rich multi-cultural experience. The Institute also counts among its alumni many ambassadors, diplomats and international and regional civil servants. This reaffirms our basic philosophy and belief at the IDIS: **"The Sky is the limit"** in our constant pursuit of academic excellence.

1. PhD in International Studies (Thesis and course work)
2. MA in International Studies
3. MA in Diplomacy
4. MA in International Conflict Management
5. MA in Strategic Studies
6. Postgraduate Diploma in International Relations
7. Postgraduate Diploma in Strategic Studies
8. BA in International Studies
9. Diploma in International Studies
10. Diploma in Strategic Studies

## Enrolled Students

Programme	No. of Students
PhD in International Studies	85
MA in International Studies	230
MA in Diplomacy	45
MA in International Conflict Management	50
Postgraduate Diploma in Strategic Studies	53
BA in International Studies	1,080
Diploma in International Studies	165
Diploma in Strategic Studies	34
<b>Total</b>	<b>1,742</b>

## International Student Component

The Institute has thirty-one (31) international students enrolled in different programmes.

## Number of Graduates in 2020

Programme	Graduates
MA (International Studies, International Conflict Management and Diplomacy)	59
PGD in Strategic Studies	35
BA in International Studies	121
Diploma in International Studies	45
Diploma in Strategic Studies	3
<b>Total</b>	<b>263</b>

## International Links and Collaborations

The institute maintains close links with resident diplomatic community. The latter participate in the Institute's programmes either as guest lecturers, seminar resource persons/participants or advisers in practical aspects of diplomacy such as diplomatic negotiations/simulations. The location of the Institute allows it to benefit from large diplomatic presence and International Organizations and Media Personnel in Nairobi.

The Institute has well developed teaching and research links with institutions that have related programmes. IDIS has established links with the following institutions:

- National Defence College (K)
- Ministry of Foreign Affairs (K)
- Centre for Parliamentary Studies and Training (CPST)
- Ministry of East African cooperation of Kenya
- International Non-Governmental Institutions
- International Development and Research Centre (IDRC)
- Horn of Africa Institute
- School of International Relations and Diplomacy in Philippines
- Defence Staff College (K)
- Kenya School of Government
- United Nations University of Peace
- Heinrich Boll Foundation
- East African Legislature
- Africa Policy Institute
- Fahamu
- RUSI

## Publications for the Year 2020

### i) Refereed Journals

- a) Wilkins Ndege, Johnson Mavole and Mumo Nzau. 2020. Stakeholders' Awareness Creation and Online Child Abuse among Primary School Children in Langata Sub-County, Kenya. *Journal of Research Innovation and Implications on Education*. 4(3): 209-219. ISSN: 2520-7504. [www.jiire.com].
- b) Wilkins Ndege, Johnson Mavole and Mumo Nzau. 2020. Stakeholders' Monitoring Interventions and Online Child Abuse among Primary School Children in Langata Sub-County, Kenya. *Journal of Research Innovation and Implications on Education*. 4(3): 156-167. ISSN: 2520-7504. [www.jiire.com].
- c) Mumo Nzau. 2020. **Book Review:** Brig. Jonah M. Mwangi, et al. 2018. Eds. The Soldier's Legacy. Nairobi: Kenya Army, KDF. *Horn Bulletin*. Vol. 3 (3): 40-43. **ISSN: 2663-4996.**
- d) Millicent A. Ochieng and Mumo Nzau. 2020. Securitization of Migration and Implications for Security in Africa: Towards Balancing State Interests and Migrants' Rights and Protection. *Horn Bulletin*. Vol. 2(1): 19-29. **ISSN: 2663-4996.**

### ii) Publications in Book Chapters

- a) Kizito Sabala (2020): Inside the 100- Day Deadline in South Sudan-Perils and Prospects in the Horn Institute, Vol. III. Bulletin Issues 1 January- February Nairobi.
- b) Kizito Sabala (2020): Kenya's Diplomacy and International Relations with IGAD on Peace and Security: Growth, Development and Prospects in Adetula, Victor etal. (Eds), Regional Economic Communities and Peace Building in Africa: Lessons from ECOWAS and IGAD, Routledge, New York, pp 149-160.
- c) Mumo Nzau. 2020. 'The Political Economy of Terrorism and Counter-Terrorism in Twenty-First-Century Africa: A Critical Evaluation.' In, Samuel Ojo Olurontoba and Toyin Falola. Eds. *The Palgrave Handbook of African Political Economy*. Switzerland AG: Palgrave Macmillan. **ISBN: 798-3-030-38922-2. DOI 10.007/978-3-030-38922-2.** Amazon Link: <https://www.amazon.com/Palgrave-Handbook-African-Political-Handbooks/dp/3030389219>
- d) Mumo Nzau. 2020. "Eastern: The Dynamics of 'bridesmaid politics'," in Cheeseman, Nic, Karuti Kanyinga and Gabrielle Lynch. Eds. *The Oxford Handbook of Kenyan Politics*. New York: Oxford University Press: 702-715. **ISBN: 978-0-19-811569-3.** UOP Link: <https://global.oup.com/academic/product/the-oxford-handbook-of-kenyan-politics-9780198815693?cc=us&lang=en&>

## Consultancies

Kizito Sabala (2019-2020); Consulted for the Building Bridges Initiative (BBI) in Kenya in the capacity of a Senior Programme Officer in charge of the Safety and Security theme and corruption.

## Staff Portfolio

Position	No of Staff
Professor	1
Senior Lecturer	2
Lecturer	5
Assistant Lecturer	1
Tutorial Fellow	1
Assistant Registrar	1
Senior Administrator Assistant	1

Administrative Assistant	1
Secretary	1
Records Clerk	1
Office Assistant	1
Driver	1
Grounds Man	1
Cleaner	1
<b>Total</b>	<b>19</b>

## Corporate Social Responsibility and Outreach Activities

1. Member of Board, Centre for Parliamentary Studies (Prof. Nzomo)
2. Co-Chair of Management Board, National Defence College (Prof. Nzomo)
3. Patron, IDIS- IFIA (Prof. Nzomo)
4. Patron, UN Model Association (Prof. Nzomo)
5. Member, Board of Management Manyoeni Mixed Secondary School (Dr. Maluki)
6. Sponsor and Trustee of Lenakakya Ivuuni Primary School (Dr. Maluki)
7. Director, Poverty Eradication and Community Empowerment (PEACE) NGO (Dr. Maluki)
8. Board Member Rusinga Environmental Trust (Dr. Martin Ouma)
9. Board Member, Kalawa secondary School (Dr. Martin Ouma)
10. Board Member, and Member of the Pastorate - Protestant Community Church (Dr. Martin Ouma)
11. Board Member, Rusinga Children welfare Fund (Dr. Martin Ouma)

## Population Studies and Research Institute

### Introduction

The population Studies and Research Institute (PSRI) was established in 1976 as a post graduate centre for training population scientists and undertaking research on population and related issues and also for providing backstopping in the fields of population and development. The Institute helps to bridge the gap in Kenya's manpower need for population experts and to meet research needs of Kenya in support of the country's development strategy.

Establishment was financially and technically supported by USAID, Ford Foundation, Rockefeller Foundation Population Council and the Government of Kenya.

### Strategic Objectives

1. To enhance capacity of individuals and institutions to utilize population information for sustainable development.
2. To generate knowledge on population and related areas of evidence based planning, policy formulation and implementation.
3. To provide technical expertise in the area of population and development locally and internationally

### Mandates of PSRI

1. Provide postgraduate training in population sciences
2. Undertake research on population and development issues
3. Provide technical assistance on population issues to the Kenya Government

### Programmes Offered

In 2019, the Institute offered the following degree programmes:

1. Postgraduate Diploma in Migration Studies (from May 2019)
2. MA in Population Studies
3. MSc in Population Studies
4. MA in Monitoring and Evaluation of Population and Development Programs
5. PhD in Population Studies

### Student Enrolment

In 2020, the COVID-19 Pandemic affected student enrolment; however, the Institute enrolled 54 students as follows:

Programme	No. of Students
Post Graduate Diploma	25
MA	5
MSc	1
MA in M&E	21
PhD	2
<b>Total</b>	<b>54</b>

**“International Student Component**  
In 2020, 22% of the enrolled students were international.

## Number of Graduates per Programme

Programme	No. of Graduands
PhD in Population Studies	1
MA Population Studies	2
MSc. Population Studies	2
MA Monitoring and Evaluation	2
Post Graduate Diploma in Migration Studies	21
<b>Total</b>	<b>28</b>

## Career Paths

The Institute has trained of over 700 demographers at postgraduate level. Most of these graduates are now working in the various planning units/department of the Kenya Government (NCPD, KNBS, State Department of Immigration), in various institutions in Kenya (e.g. Universities, NGOs) as well as in some international organisations such as ICF Macro, FHI; CDC Atlanta, Population Council; AMREF, APHRC, UNFPA, UNICEF, AFIDEP, World Bank, Canada, UK Universities, IGAD among others.

## Research Activities

Members of PSRI staff continued to be engaged in research in their areas expertise and interest as individuals or in collaboration with researchers from other institutions. The outputs resulting from these activities are reflected in publications in refereed journals, books, research reports and presentations of papers in scientific fora.

## Publications

1. **Wambui Kungu, Anne Khasakhala, Alfred Agwanda (2020).** Use of long-acting reversible contraception among adolescents and young women in Kenya doi.org/10.1371/journal.pone.0241506
2. Vincent Otieno, Alfred Agwanda Otieno, Anne Khasakhala. **Fertility Transition in selected sub-Saharan African countries: the role of Family Planning Programmes.** Publication date: 2020/5/29 Journal: F1000Research Volume 8 Issue 1748
3. Vincent Otieno, Alfred Agwanda Otieno, Anne Khasakhala. **Trends in fertility preference implementation among selected Eastern African countries.** Publication date: 2020/2/3 Journal: F1000Research Volume 9 Issue 79 Pages 79.
4. Wambui Kungu, Anne Khasakhala, Alfred Agwanda. **Trends and factors associated with long-acting reversible contraception in Kenya.** Publication date: 2020/5/20. F1000Research Volume 89 Issue 382
5. Wambui Kungu, Alfred Agwanda, Anne Khasakhala. **Trends and determinants of contraceptive method choice among Women aged 15-24 years in Kenya.** Publication date: 2020/3/19. F1000Research Volume 9 Issue 197
6. Mary Muyonga, George Odipo and Alfred O. Agwanda. **Interlinkages between and Inequality in Africa: Review of** Contemporary Studies. AHMR African Human Mobility Review – Volume 6 No 1, JAN-APR 2020

## Book Chapter

Lawrence Ikamari and Agwanda Alfred (2020). Changes in Families and Households in East Africa. In (eds) Clifford Odimwengu: Family Demography in Post-2015 development agenda in Africa. Springer January 2020. OI:10,1007/978-3-030-1488-4\_13

## Papers Presented in Conferences/Workshops

Members of staff and students continued to present papers in meetings, workshops, seminars and conferences both locally and internationally as indicated below;

## Technical Backstopping

As part of the execution of its mandate PSRI continued to provide technical support to Government and UN agencies, Government Statutory bodies among others. The outcomes of these activities are research reports and presentations in meetings, seminars workshops and conferences as indicated below.

## Reports/Presentations

1. Population Surge - Positioning to Reap from the Demographic Dividend - The 2019 Census Report. Presented at the ICPAK Economic Symposium on Friday 14th February 2020 at Hotel Intercontinental, Nairobi by Anne A Khasakhala, PhD.
2. Transformative Results as an Enabler and Catalytic Accelerator for the Achievement of SDGs in Kenya.
3. Highlights from Position Paper for CCA and Light PSA. By Alfred Agwanda, PhD MBS on 18th November 2020.
4. National Population Policy - Overview by Prof. Alfred Agwanda Otieno 8th September 2020 ARC Hotel - Egerton University.

## Consultancies

**Anne A Khasakhala (Consultant).** Preparation of the Common African Population Position Report on Population and Development (African Union) **(On going)**

## Other Activities

1. Director, PSRI, Prof. Alfred Agwanda Otieno and Mr. Ben Jarabi facilitated at the National Council for Population and Development (NCPD) at a workshop to Review the Draft National Population Policy for Sustainable Development Held at ARC Hotel, Egerton University from 8<sup>th</sup> - 12<sup>th</sup> September, 2020. PSRI are the consultants the process.
2. PSRI staff Participated in further Analysis of the 2019 Kenya National Census
3. PSRI staff Participated in the County Consultative Forums to collect views from stakeholders on pertinent population issues.
4. Dr. Andrew Mutuku represented the Institute at a Workshop to on Development of Humanitarian Database for Kenya at ARC Hotel, Egerton University on 21<sup>st</sup> to 23<sup>rd</sup> December, 2020.



## Links and Collaborations

1. National Council for Population and Development (NCPD)
2. Kenya National Bureau of Statistics (KNBS)
3. Department of Civil registration
4. UNFPA (United Nations Population Fund)
5. AFIDEP
6. CARTA (Consortium for Advanced Research Training in Africa)
7. African Population and Health Research Center (APHRC)
8. Helpage International
9. ICRHK (FP 2020)
10. Maastricht University
11. State Department of Immigration and Citizen Services

## Staff Portfolio

PSRI had 16 members of staff (10 academic and 6 non-academic) in 2019 as listed below.

Designation	No. of Staff
Associate Professor	3
Senior Lecturer	4
Lecturer & Lecturer Equivalent	3
Asst. Registrar	1
Principal Technologist	1
Senior Asst. Secretary - C	1
Driver	1
Record Clerk A/B	1
Messenger II	1
<b>Total</b>	<b>16</b>

## Corporate Social Responsibility and Outreach Activities

Area	Responsibility	Contribution
Dr. Anne Khasakhala is Member of the Advisory Board (Carolina for Kebera) NGO	In Charge of Programmes and Research	Voluntary Service

## Major Achievements, Challenges and Projections

Area	Responsibility	Contribution
Research	A Strategic Research Agenda on Population and Sustainable Development in Kenya (January 2020). Prepared by PSRI on behalf of NCPD	To strategic objective 2: To generate knowledge on population and related areas of evidence based planning, policy formulation and implementation

Publications	In 2019/20 the Institute published 6 Journal Papers and one Book Chapter	Contribution to strategic objective 2: To generate knowledge on population and related areas of evidence based planning, policy formulation and implementation
Launch of new Post Graduate Diploma in Migration Studies	The Institute launched a new Post Graduate Diploma in Migration Studies which began in May 2019.	Contribution to strategic goal No. 1: To enhance capacity of individuals and institutions to utilize population information for sustainable development. And SDG 4, (Quality Education)
Technical Backstopping	Members of the Institute in Participated in Further Analysis of the 2019 Population Census	Contribution of SDG 8, (decent Work and Economic Growth) and Strategic Objective No. 2
The Institute Produced a Report on Transformative Results as an Enabler and Catalytic Accelerator for the Achievement of SDGs in Kenya		Contribution to all the SDGs