



**First Pan African International Research  
Congress on Knowledge Generation  
and Dissemination (PAIRC 2018)  
NEWSLETTER**

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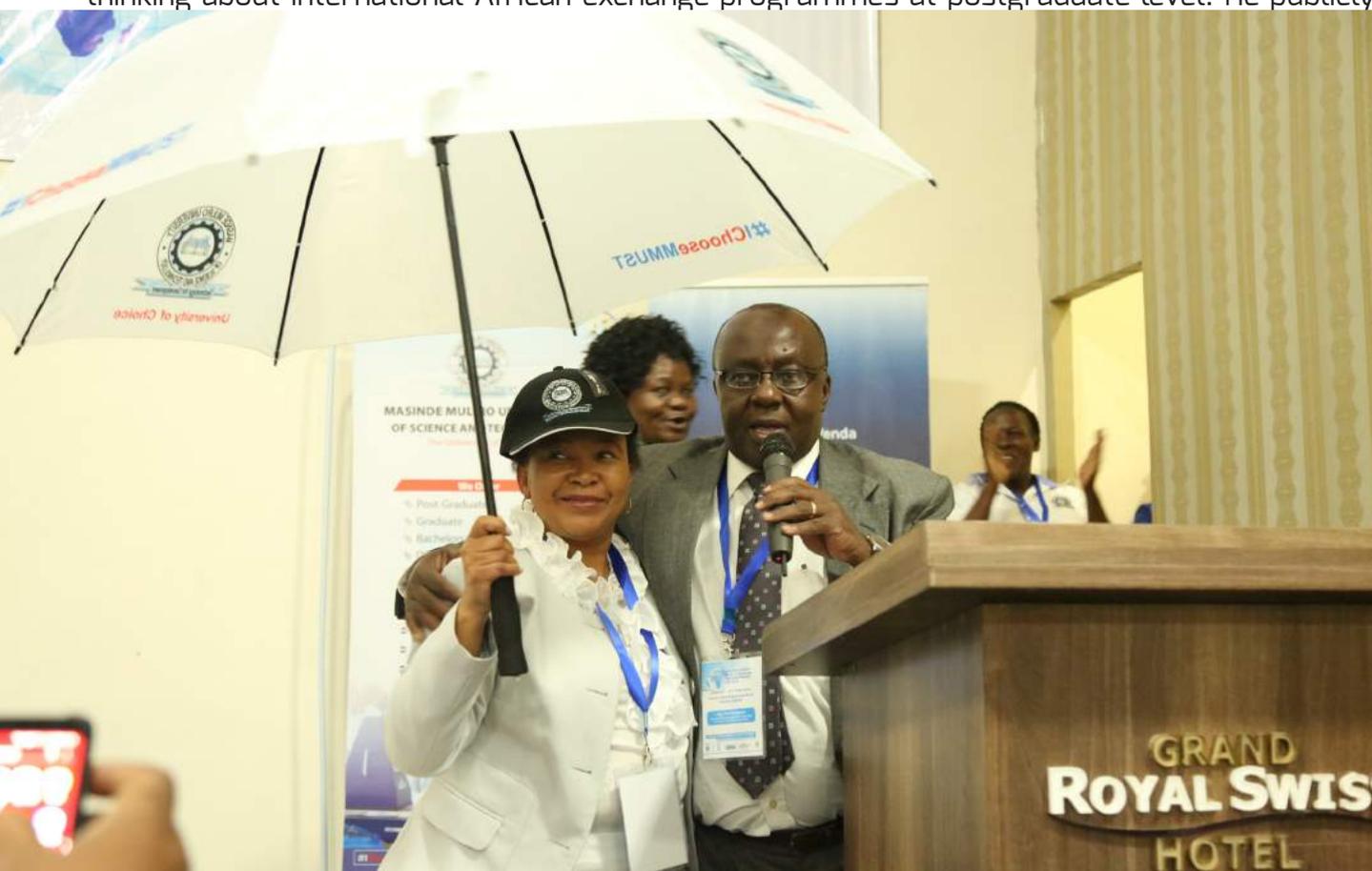
# Walter Sisulu University to host the Second Pan African International Research Congress in 2020



# Walter Sisulu University to host the Second Pan African International Research Congress in 2020

## *THE FIRST PAN AFRICAN INTERNATIONAL CONGRESS A SUCCESS*

Speaking at the Official closing ceremony of the First Pan African International Research Congress on Knowledge Generation and Dissemination (PAIRC 2018), Prof Eng. Fred Otieno, the Vice-Chancellor of Masinde Muliro University of Science and Technology (MMUST) in Kakamega, Kenya officially announced that the second Pan African International Research Congress will be hosted by Walter Sisulu University, South Africa in 2020. Prof Otieno expressed his gratitude to all participants and organisers for participating in the 2018 Pan African International Research congress. He further asked Vice-Chancellors of the partnering institutions to start thinking about International African exchange programmes at postgraduate level. He publicly



*Photo: Prof Eng. Fred Otieno (Right) with Dr Elphinah Cishe (Right) of Walter Sisulu University after announcing WSU as the host of the next Pan African International congress*

announced that MMUST is ready for such initiatives because it will improve the standard of education and promote a diverse experience and cultures amongst the involved African institutions. Prof Eng. Otieno expressed that he is confident that this congress will gain momentum along



*Photo Above: University of Venda (UNIVEN) Acting Deputy Vice-Chancellor Academic, Senior Prof Base Khoza*

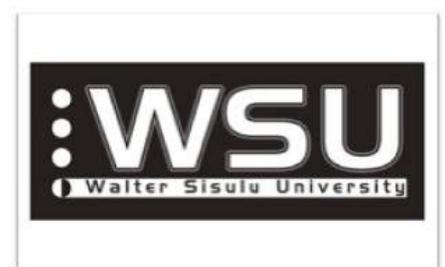


*Photo Above: Acting Director of the Directorate of Research Development at Walter Sisulu University, Dr Elphinah Cishe*

the way and invited other African institutions interested to join this African International Research Congress.

The University of Venda (UNIVEN) Acting Deputy Vice-Chancellor Academic, Senior Prof Base Khoza, who led delegates from UNIVEN, South Africa pronounced the First Pan African International Congress a success. She told the audience that she will be happy if all measures experienced in this congress can be used in the near future.

Acting Director of the Directorate of Research Development at Walter Sisulu University, Dr Elphinah Cishe thanked the five Vice-Chancellors of the partnering Universities who came to an agreement in 2016 in Polokwane, South Africa because their meeting gave birth to this African Congress. She said she was impressed because almost all the speakers touched on the theme of the congress 'Harnessing Research Output for Sustainable Development'.



*Picture Above: Walter Sisulu University Logo*

# Economic Development and Research Output in Africa

## *ACADEMICS HAVE AND CONTINUE TO MAKE IMMENSE CONTRIBUTIONS IN GOVERNANCE AND LEADERSHIP*

Deputy Governor of Kisumu County, Dr. Mathews Ochieng' Owili, representing Governor Prof. Anyang Nyong'o spoke about Economic Development and Research Output in Africa.

He said this congress will assist the continent to be a better place. The Deputy Governor further highlighted that, the partnership of this First Pan African International Congress is a clear indication that Kenya has built strong linkages for knowledge generation and sharing. He said policy makers do not value research hence insufficient resources are allocated towards research. "Kenyan laboratories are poorly equipped and are understaffed."

Dr Mathews highlighted that land resource for research is limited and land grabbers are taking advantage. The Deputy Governor highlighted that there is restricted funding, while African governments are pressing for

immediate results. "Outside this continent there is interest in cutting edge research," he expressed. He further mentioned that recognition of researchers is poorly done in Africa. He said such matters make researchers move outside the country or changing jobs to business.

He expressed that Kisumu is unique because both Governor and Deputy are academics. Dr Mathews said he has learnt that academics have and continue to make immense contributions in governance and leadership. He indicated that the Congress will improve Kisumu, Kenya and Africa in general. The Deputy Governor mentioned four critical areas in governance that affect involvement in research which include social, political and economic context within which governments work: Quality and availability of evidence; Linkages between research and government institutions; Knowledge generation and sharing.

*Photo Below: Dr. Mathews Ochieng' Owili, Deputy Governor Kisumu County*



*On Photo: Professor Winnie Mucherah from Ball State University in the United States of America (USA)*

## **African researchers should start thinking about developing relevant theories for relevancy in African context**

During the Plenary Address Professor Winnie Mucherah from Ball State University in the United States of America (USA) presented on the theme 'Harnessing Research Output through Sustainable Development'. She took delegates through conducts that drive good research where she expressed that Africa has the potential to discover and patent the inherited African herbs especially the trees that are found in Kakamega forest. If proper

research can be conducted, findings patented, and African entrepreneurs invited on board, this can boost African economy.

"We have lost opportunity to use research in naming our own rivers, mountains and lakes because we have allowed foreign people to claim to have discovered our continent, says Professor Winnie Mucherah "

Prof Mucherah continued

to express that African researchers should come up with new models and stop using western models for African context. Our African culture is different from Western culture. Therefore, she advised delegates to develop theories relevant to the African context. Prof Mucherah concluded her talk by telling the delegates, especially researchers to embrace the culture of research.

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# An urgent call for Health Technology innovations regulation



*Photo Above: Dr Egwar Alunyu from Busitema University in Uganda*

Human beings are a center of concerns for sustainable development. They are entitled to a healthy and productive life in harmony with nature. Advancement in technology often raise concerns in how it is implemented in the cause of development of communities.

In line with the recent study by Dr Egwar Alunyu from Busitema University in Uganda, such concerns vary from information that enforces safety, reliability, and performance of such solutions, product or services; and notwithstanding, providing stakeholders some level of choice of technology, solutions & services.

In the study, Alunyu argues that development of e-Health systems is critical to ensure that all systems are integrated. "Lack of a standardized system is detrimental to sustainable development," says Alunyu. This will ensure that the systems interlink and communicate

with one another, thereby eliminating wastage of resources in the implementation.

A further challenge relates to the lack of regulation of adaption of e-Health systems of development which does pose challenges to the standardization of the new technology in pursuit because these are donor-led initiatives. Further challenges to this relates to insufficient human resource and lack of the industry involvement. If taken care of, the standardization of the systems will ensure adaptation to the international standards as well as ensuring alignment to the Millennium Development Goals.

In the light of these challenges, Alunyu recommends that global strategies should be implemented as a matter of urgency to ensure the necessary standardization.



*Photo Above: Dr Lydia Anyonje of Masinde Muliro University of Science and Technology, Department of Journalism and Mass Communication*

# Communicating traditional funerals

*MANY PEOPLE ARE IGNORANT AS FAR AS THE TRADITIONAL FUNERAL RITUALS AND PRACTICES OF THEIR COMMUNITIES ARE CONCERNED*

Dr Lydia Anyonje of Masinde Muliro University of Science and Technology, Department of Journalism and Mass Communication made a presentation which focused on traditional funerals. When sharing the background of her study, she indicated that today many people are ignorant as far as the traditional funeral rituals and practices of their communities are concerned, leading to the myriad of inexplicable problems that society is not able to solve using science, religion or conventional means. She highlighted that during funerals, people in Africa wail, sing, rant, act, make utterances and carry out rituals from which other mourners, and the bereaved draw inferences or meaning.

Dr Anyonje shared with the audience that communication is non-verbal and visual as well as verbal and therefore funeral rituals are a critical conduit of communication of a community's practices and values. She said that nobody looked at the communication part when it comes to funerals.

Her study amongst others is seeking to examine the communication aspects of funeral rituals employed by the Abashisa of the Luhya community of Western Kenya and also to establish the causes of

the decline in the practice of communicative funeral rituals among the Abashisa of the Luhya community of Western Kenya.

She talked about communication aspects of Abashisa funeral rituals shortly before death, traditional funeral rituals, rituals immediately after death, rituals during and after burial, gender and funeral rituals among Abashisa, the grave communicative conduit and emblem of traditional problem solving and cultural pathway and threats to the resilience of traditional funeral rituals.

According to Dr Anyonje, the greatest threat to the resilience of Abashisa traditional funeral rituals is seen as religion, especially Christianity and not limited to technology and education.

One of her recommendations was the sensitization of communities about the importance of the continuation of funeral rituals that are useful.

As she concluded her presentation she said "There is no doubt that the issue of traditional funeral rites and its decline continues to present a stinging rendering of Abashisa community's greatest challenges".



*Photo Above: Dr Kennedy Bota, Senior Lecturer in Educational Psychology at MMUST, Kenya*

## **Inclusive education skills remain a priority**

### *TRAINING IN DIVERSITY MANAGEMENT FOR TEACHERS REMAINS CRITICAL*

One of the sustainable development goals relates to the free quality education for all. Dr Kennedy Bota, Senior Lecturer in Educational Psychology at MMUST, Kenya presented on challenges facing schools in Kenya on providing inclusive education. Kenya has adopted a policy of establishing special Units alongside regular primary schools. The special units in these primary schools specialize either in one category of disability or a mixture. Some Secondary schools also practice some kind of inclusion, though challenges related to barriers within these schools are present. Special Units are located alongside some primary schools. In order to accommodate needs of learners, teachers arrange for some learners to attend some hours in the morning and included in regular classrooms in the afternoon.

Kenya has instituted some legal framework on inclusive education through the constitution, the Disability Act and the Basic Education Act, and this is to ensure that all people have the right to social services.

In many cases, access to materials and devices to overcome constraints arising from the person's disability has to be catered for. In some units, teachers deal with moderate mentally challenged learners, those with speech difficulties, epilepsy and down syndrome. The ability to deal with these challenges depends on the training teachers receive. In his study it was revealed that there is a need for continuous training to keep these teachers updated on latest developments and new technology. On the other side, schools are unable to meet some of the technology requirements due to lack of funding. These

challenges have also helped to change other teachers' attitudes towards disability by bringing to their awareness that inclusive classes are demanding and requires total commitment from teachers.

Dr Bota remarks that the role of teachers play in managing these challenges is critical. The situation calls for every teacher to have skills to be able to manage the learning environment. It is on this basis that the teacher education curriculum needs to be re-examined. Training in diversity management for teachers remains critical. Involvement of other role players such as specialists would also assist in supporting teachers. It is evident that teaching strategies must also be reviewed to ensure adjustment to the different environment, believes Dr Bota.



*Photo Above: Dr Peter Bukhala  
Senior Lecturer, Masinde Muliro University of Science and  
Technology, Kenya*

## **Effect of heavy backpack, type and walking distance on the musculoskeletal health of primary school pupils in Kakamega Municipality, Kenya**

A study involving 440 pupils in public schools in Kakamega municipality in Kenya found out that about 50% of them carried heavier packbags than the WHO recommended 10-15% of body weight. In addition, many walked on average 2km carrying this weight. The packbags were also found unsuitable as they were made of thin straps that caused pain to the shoulders. Among the things carried by pupils to school included books, food, water, firewood and extra clothes. Some of the reasons given for the extra weight included teachers not following the timetable strictly, no lunch programmes in most schools and schools did not have lockers. The study recommended that schools should introduce lunch programmes to ensure pupils at least had a reasonable meal.



*Photo Above: Prof Peter Tshisikhawe from the University of Venda under the School of Mathematical and Natural Sciences*

## Diabetes can be Managed using Traditional Medicine

Prof Peter Tshisikhawe from the University of Venda under the School of Mathematical and Natural Sciences, Department of Botany chaired a session on Indigenous Knowledge Systems for Development and also gave a talk on Management of Diabetes mellitus by medicinal plants in that session. He made his presentation on day four of the 1st PAIRC on Thursday, June 21, 2018. In his talk he gave the background on Diabetes mellitus which is commonly referred to as diabetes. He also indicated the need to document medicinal plants used by local communities in management of diabetes in Venda before such important information disappears.

According to him this practice is embraced by rural communities who have their own

perceptions regarding traditional and orthodox medicines. His presentation flagged up the dominance of two species in the profile of medicinal plants used in treatment of diabetes. He cautioned the dominance of the use of bark in preparation of medicinal materials as a bad practice that may impact negatively on the population status of the species involved. The presentation was well received by the audience and stirred a lot of debate regarding testing the efficacy of some of the species. Suggestions were also made on development of products that can be used in treatment of diabetes. The audience also stressed that results of such a project should be disseminated widely as a way of raising awareness amongst members of the community.



*Photo Above: Prof Jabulani Gumbo (right) pointing at his presentation*

## The Presence of Toxic and Non-toxic Cyanobacteria in the sediments of the Limpopo River basin: Implications for human health

Prof Jabulani Ray Gumbo presented a joint paper by Murendeni Magonono, Paul Johan Oberholster, Addmore Shonhai, Stanley Makumire and himself titled 'The Presence of Toxic and Non-toxic Cyanobacteria in the sediments of the Limpopo River basin: Implications for human health'.

Toxic and non-toxic cyanobacteria species are on the increase worldwide including in South Africa. The emergence and resurgence of harmful algal blooms (HABS) is due to eutrophication. The toxic cyanobacteria are known to carry genes that produce cyanotoxins which are lethal to humans. However, the toxic and non-toxic cyanobacteria

species merely differ in the *mcy* gene content, the peptide synthetase producing microcystin. The results obtained in this study indicated the presence of toxic and non-toxic cyanobacteria species in the Limpopo River and its tributaries. The molecular tools were used to establish the presence of non-toxic and toxic cyanobacteria-based genes that code for the production of cyanotoxins. The presence of nutrients, phosphates and nitrates in the river sediments, encourages the growth of the cyanobacteria should river flows commence. Also the presence of toxic genes, expressing cylindrospermopsin and microcystin/nodularin in the river sediments points to worri-

some trend in the Limpopo river basin.

The cyanotoxins are harmful to humans who consume the water originating from boreholes located inside the Limpopo river basin or drilled along the Limpopo river basin. Secondly the water supplies from the Limpopo river basin are used by commercial and subsistence irrigation farmers for growing food crops and livestock watering. Thus presence of cyanotoxins can also poison the livestock and game animals (wildlife) in transfrontier parks. Cyanotoxins have been implicated in the negative growth (stunting) of plants and this may be serious repercussions for the irrigation farmers.



*On Photo:  
Prof Abenga,  
from the  
University of  
Masine Muliro  
University of  
Science and  
Technology*

## Re-Engineering teaching Education - Prof Abenga

Prof Abenga, from the University of Masine Muliro University of Science and Technology presented on the need to re-engineer the teaching profession. She argues that quality of Education depends largely in the quality of the teaching force. Many challenges have faced the teaching profession both in the training phase as well as the school teaching level. In order to address these challenges, it is important to re-think on the extent to which these challenges can be addressed by both government as well as those in the school management system.

Professor Abenga further argued that excellent policies and curriculum can only be successful with professionally prepared teachers competent to implement them. Teacher Education faces emerging challenges of globalization technology advancement, developments and educational reforms. There is a need for adequately prepared teachers to meet dynamic changes, expectations and uncertainties of the work environment. Such changes relate to the nature of expectations in the learning content as well as the management of the teaching environment varying from the learners' expectations to the outcomes in the teaching process.

In her view, teaching is continually being superficially critiqued. In some cases, teaching is considered as a stepping stone to other careers, hence there is a challenge and concern about the quality of education. Teachers require certain competencies, and unfortunately, they don't have these competencies. With regard to induction of teachers, according to Professor Abenga, the challenge is that some teachers have to learn the hard way as there is no effective induction. Challenges of induction of teachers is aggravated by the fact that even those that are supposed to induct teachers do not have the necessary skills requisites to do so.

Individually, teaching is often motivated by financial gain through higher qualification. Often this results in teacher relocation or deployment to different level of school or administrative position.

There is a need to re-think and re-engineer the entire teacher education component in view of current and future competency demands. In the process, there is a need to adopt learning environments and pedagogies that facilitate 21st century education objectives with due appreciation of local and global environments.



# FIRST PAN AFRICAN INTERNATIONAL RESEARCH CONGRESS

Hosted by Masinde Muliro University of Science & Technology (MMUST), Kakamega- Kenya in partnership with University of Venda (UNIVEN) - South Africa, Walter Sisulu University (WSU)-South Africa; Botswana International University of Science & Technology (BIUST)-Botswana, and University of Ibadan (UI)- Nigeria.

## Partnering Institutions

### HOST



Kenya



South Africa



South Africa



Botswana



University of Ibadan  
NIGERIA'S PREMIER UNIVERSITY

Nigeria