



CBPS NEWS

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SPECIAL POINTS OF INTEREST:

- CBPS Researchers recognized internationally
- Students do CBPS Proud in local and international competitions
- CBPS provides training in key areas
- GK Recognizes ICCA as a success story

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CEBIB RESEARCHER RECOGNIZED

This year's UNESCO MERCK Africa Research Summit (UNESCO-MARS) had a special focus on Ebola and emergent infectious diseases. Up to 100 scientist/researchers from all over Africa, were selected to attend the Summit in Geneva, Switzerland. Merck Living Innovation recognised Dr. Benard W. Kulohoma as the best amongst the five awardees for Emergent Young African Researchers. Dr. Kulohoma, a Bioinformatics lecturer at CEBIB was awarded the 1st prize/award in recognition of his work in Emerging Infectious Diseases. The award was presented to him at the 2015 UNESCO-

MARS held on the 19th and 20th October 2015 in Geneva, Switzerland.



Dr. Kulohoma

The annual Summit aims to contribute to building research capacity in the African research community with special focus on Ebola and emergent infectious diseases.

Source: <http://africa-newsroom.com/press/unescomerck-africa-research-summit-mars-special-focus-on-ebola-and-emergent-infectious-diseases-ask-your-questions-live>.



CBPS STUDENTS WIN COVETED AWARD



Clifford Okoth and James Ogola

Clifford Okoth and James Ogola have received \$3,000 after emerging the best students to pitch an idea in the access of energy in off-grid communities, using new or existing technology. The two students from the College of Biological and Physical Sciences were selected among 200 applicants in the first Energy Innovation Challenge

launched by the Network of African Science Academics (NASAC).

Their idea involved use of high technology valve regulated rechargeable batteries to tap energy from the sun and to store this energy, which is then used to light rural households.

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CBPS STUDENTS EXCEL AT FORUM

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James Ogolla and Clifford Okoth at the University of Dar es Salaam

The students, who are both in their final year undertaking Bachelor of Science in Industrial Chemistry, were among successful applicants who went through DAREnterprise, an eight-week course at the University of Dar es Salaam. This course was run by Cambridge Development Initiative with tutors from University of Cambridge, Harvard University, Tanzania National Economic Empowerment Council and Commis-

sion for Science Technology.

At the end of the eight weeks, the teams pitched their business idea to investors in a Social Entrepreneurship Conference, at the Bank of Tanzania.

Already, they are piloting the project where they have completed lighting 25 households in Gem Yala and five local businesses. They have also set up a solar charging station where they give rechargeable batteries and lamps at a regis-

tration fee of Kshs 200. The battery used for lighting is charged at least twice a week at a cost of Kshs 25. This, James says is very affordable compared to the use of paraffin for lighting rural homes.

According to James Ogolla, their idea emerged the best because their project is very cost-effective.

“The experience was good and challenging,” observed Mr. Clifford Okoth.

The training enabled them gain entrepreneurship skills such as market research, product development, presentation skills, public speaking and leadership skills. They also developed a network of peers and professional links.



Clifford and James with a Dummy Cheque for 3000 US Dollars

Student Leadership Training in Limuru

Hon. Martha Karua and Businessman Vimal Shah take time to address students at leadership training



Hon. Martha Karua, Presidential candidate during 2013 elections and CEO Bidco Africa, Mr. Vimal Shah made key address during University of Nairobi student leadership training held at Limuru.

Mr. Vimal Shah took the student leaders through entrepreneurial and corporate leadership development while Chairperson Narc Kenya, Ms. Karua, made a key address on personal leadership development. The student leaders heading various student organiza-

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Martha Karua And Vimal Shah at Leadership Training

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tions at the College of Biological and Physical Sciences were also trained on personal branding and negotiation skills for leaders. In addition, the students were taken through leadership in security on surviving a terrorist attack .During the training held at Tigoni guest house, students had an opportunity to take part in networking



Students and Trainers pose with Vimal Shah

as well as team building activities with guest speakers and College management staff. Angaza Coaching and Rev. Dr. Julius

Weche were among trainers who spoke on experiential learning and capturing expectations-laying the foundation.

Principal CBPS, Prof. B. Aduda, Prof. J. Mwabora, Chairman Physics Department , Prof. J. Onyari Chairman Chemistry department, College Registrar Mr. K. Mbali and Bursar, Ms. Lucy Kathae were among college administrative staff present dur-

CEBIB NOW ABLE TO CONDUCT COMPUTERIZED DNA EXTRACTION

The Centre for Biotechnology and Bioinformatics signed an MOU with a long-standing industrial partner, Biozeq Limited and as a result, CEBIB will benefit from the collaboration through placement of laboratory equipment worth USD 298,093. According to the contract endorsed by the Vice-Chancellor Prof. Peter

Mbithi and the company Director, some of the equipment



QIAcube and Rotor-Gene Q

scheduled for placement in-

cludes a QIAcube HT system robotic workstation, Rotor-Gene Q-6plex system real-time Polymerase Chain Reaction (PCR) instrument, QIAxcel system and a PyroMark Q24 system instrument. The centre will have the capacity to conduct computerised DNA extraction, PCR, Gel electrophoresis and purification of PCR products among other molecular biology techniques.

CEBIB will benefit from the collaboration through placement of laboratory equipment worth USD298,093.

KENYA GOVERNMENT RECOGNIZES ICCA

In the fight against Climate Change, the Government of Kenya has recognized the contribution of “newest” institute in the college of Biological and Physical Sciences, ICCA. This recognition was published in the latest publication circulated prior to the United Nations Climate Change Conference of Parties COP 21, held from 30th November to 12th

December 2015 The publication entitled “Climate Change Success Stories from Kenya” summarizes the Government’s efforts in addressing the climate change challenge in Kenya. The Institute for Climate Change and Adaptation is specifically mentioned under KNOWLEDGE Management and Capacity Development as one of the success

stories.

The Institute is also mentioned in the Climate Change Bill. A sign that the Government recognizes the role ICCA plays in Capacity Building with a view to tackling the challenges of Climate Change.



Flooding: A Challenge of Climate Change

Student Activities



Students Posing with Clifford and James at the Energy Innovation Challenge



Student Registration



CREATION VS EVOLUTION: TALK BY PROF. MALO



Prof Malo giving a talk on Creation vs Evolution

Eminent Professor of Physics, Prof. Joseph Malo, took the plunge to discuss one of the most intriguing questions in physics today, the origin of mass.

Prof. Malo gave a public lecture titled *Creation versus Evolution* where he highlighted that science and religion do indeed appreciate and recognize not only the beauty and magnificence of the universe but also desire to discover what is behind this grandeur.

In his lecture held on October 15, 2015, Prof. Malo noted that it is naive for a scientist to conclude that the existence of God is impossible because God cannot be observed or experimented.

He highlighted that current research in Physics focuses on the understanding of the following: how galaxies form in the Big Bang theory, Physics at the earliest instant of time and reconciling observation and basic theory as well extrapolation of the Universe backward in time using general relativity.

“The basic theory predicts that at an instant time in the past we came face to face with infinity in terms of extreme densities, temperatures and pressures,” explained Prof. Malo.

“Thus without any credible evidence associated with the earliest instant of the expansion with very extreme physical conditions, the Big Bang theory cannot and does not provide any explanation for such initial conditions. It rather

describes and explains the general evolution of the universe after that instant,” Prof. Malo said.

He noted that there is profound mystery in science in explaining the creation of the universe. Prof. Malo pointed out that there is a concept of creation that leads to the existence of the Supreme Being- God.

Present during this public lecture was the President of the Atheists in Kenya, Mr. Harrison Mumia. The atheists’ president welcomed the discussion and proposed for incorporation of additional religions in the comparison study between creation and evolution.

CBPS STUDENTS VISIT GATHURI SCHOOL



CBPS Students with Students from Gathuri School

Students and staff from University of Nairobi (UoN) spent time with 2015 candidates to encourage them prior to the national examinations. During the visit, students and teachers of Gathuri School in Kiambu, were awarded with university branded souvenirs. The visit aimed to give advice to students on do's and don'ts during exams and on transition from school.

In light of the crippling of education

sector encountered in schools at the beginning of third term, UoN fraternity aimed to give moral support and ease exam fever and panic that might have been experienced by students. The students were advised to refrain from destructive behaviour both in school and out of school. They were also instructed to manage their time well and to allocate periods to relax.

The outreach event which was held on October 5, 2015, presented the students with University of Nairobi branded A4 loose leaf pads, branded biro pens and inspiration slates.

The teachers received branded folders.

The inspirational slates read *‘The winner has a programme, the loser has an excuse’* and, *‘Each day is a gift, that is why it is called*

the present’

The University delegation together with the candidates also watered trees that were planted during the first visit to the schools.

While interacting with the form four and class eight students, UoN staff emphasized preserving of school property and not taking up grievances through destruction.

‘Read the signs of the times and take recognition of the transition zone you get into, after exams. Be ready to handle leaving the comfort zone because that is what transition is about, change,’ the students were informed.

The University was represented by a delegation of students and staff members from College of Biological and Physical Sciences and Mrs. Janet Nyaga from University

C4D LAUNCHES M-LAB MEASUREMENT LAB

University of Nairobi Computing for Development Lab (C4DLab) has launched (M-Lab) Measurement Lab, an open and distributed online tool used to measure and monitor the utilization of internet bandwidth.

The will enable internet users to get objective data on the speed and quality of broadband connections by conducting measurement tests on their computers or phones.

This will enhance internet transparency as well as enable internet users to compare performance of broadband. In addition it will provide information that can be used to diagnose the performance of the connection.

C4DLab's objective for M-Lab launch is to increase its use in Kenya as a resource for broadband data. Also, it will provide consumers and network operators with reliable data and demonstrate

to the communications regulator and policy makers the value of M-lab tools for Kenya's broadband ecosystem. Google is the sponsoring partner for M-



Dr. Gitau Representing Mr. Tiampati PS ICT Ministry

Lab.

The Principal Secretary, Ministry of Information, Communications and Technology, Mr Joseph Tiampati, who was represented by Dr. Kate Getao lauched M-

Lab on October 26, 2015 at the College of Biological and Physical Status. In his speech, Mr. Tiampati said that M-Lab will enhance transparency as well as expand infrastructure for delivery of bandwidth to the user.

Representing University of Nairobi Vice Chancellor, Prof. Henry Mutoro, Deputy Vice-Chancellor Academic Affairs noted that UoN management will support the successful running of MLAB. He reiterated the importance of strengthening partners noting that it is the linkages with partners that have contributed to building the University.

-Lab covers over 130 servers in the US, Europe, Australia and Parts of Africa. Presently M-Lab is the largest open measurement platform and data repository in the world, supporting research .



C4D Introduces M– Lab Open Measurement Lab

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Prof. Okelo-Odongo, Director School of Computing and Informatics, Prof. Timothy Waema, a Professor at the School of Computing and Informatics and Chairman Management Board Kenya Educa-

tion Network (KENET), Dr. Tonny Omwansa, C4DLab Coordinator, Prof. Meoli Kashorda CEO (KENET), Eng. Fancis Wangusi and Google NetLab Project Manager Collins Ndukwe, were among

distinguished guests at the M-Lab launch.

Representatives from Communication Authority of Kenya (CAK), Strathmore University and Chuka University were



Dr. Omwansa and Prof. Waema pose with workshop participants at the launch of M-Lab

University of Nairobi

Procurement

Manager, Mr. Joseph

Mokaya emphasized

the need to adhere to

the Code of Ethics,

Constitution of Kenya

(2010) Chapter six, as

well as Economic

Crimes Act, 2003.

CBPS Holds Procurement Symposium

The College of Biological and Physical Sciences hosted a suppliers symposium with an aim to build a strong supplier-buyer relationship. During the symposium held on August 13, 2015, the need to give the right specification by user departments for products and the requirement of procurement officers to maintain high integrity was emphasized.

The suppliers requested to receive quotation forms via email as well as feedback on evaluation of quotations. This has already been implemented and suppliers now receive the quotation forms online.

University of Nairobi Procurement Manager, Mr. Joseph Mokaya emphasized the need to adhere to

the Code of Ethics, Constitution of Kenya (2010) Chapter six, as well as Economic Crimes Act, 2003. Mr. Mokaya urged procurement officers in the University to exercise integrity. He also highlighted the importance of

process starts with the user and ends with the user. Prof. Aduda stressed that users need to avail themselves for inspection of delivered goods. In addition, he said that the College strives to ensure fair evaluation is undertaken on all quotations received. Former College ICT officer-in-charge, Mr. Abdisalam Tuka, informed the suppliers on the importance of having websites as a means of creating digital presence and awareness of their business operations.

Mr. Tuka noted that websites enhance building of brand authority as well as driving traffic to



Participants at the Symposium

fair treatment of suppliers and prompt payment.

The Principal CBPS, Prof. Bernard Aduda, noted that procurement



Mr. F. Otieno CBPS Procurement Officer

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African Center of Excellence Workshop

School of Physical Sciences Professors chaired a workshop on writing a proposal to World Bank to establish a Center of Excellence in energy at the University of Nairobi.

The workshop held on August 21, 2015 at the College of Biological and Physical Sciences brought together participants

from Kenya Industrial Research and Development Institute, National Oil, Energy Regulatory Commission, Kenya Power and Lighting Corporation Institute of Energy Studies and Research, National Environment Management Authority (NEMA) and Kenya Meteorological Department, to brainstorm on the way

forward in achieving this goal.

The workshop was co-chaired by Prof. Francis Mutua and Prof. Wandera Ogana and had representatives from University of Nairobi's departments of Physics, Geology, Chemistry, School of Mathematics and School of Biological Sciences.



Participants In the Workshop



African Center of Excellence Workshop participants group photo

CBPS Students Excel in the Mazingira 2015 Challenge

Students from Chiromo Environment Awareness Club (CEAC) won the Mazingira Challenge 2015 trophy for participating in a quiz challenge, public speaking and an essay writing competition. This year's theme for Mazingira Challenge was *Harnessing youth innovation for environmental conservation*.

The club represented University of Nairobi in a competition that had ten universities battle it out for the trophy. Unelker Maogo, a second year Environmental Conservation and Natural Resource Management student from the School of Biological Sciences won

in the essay category, while Joel Kinanga, a third year student also from School of Biological Sciences was the best in public speaking. The winners were awarded cash prizes, certificates and trophies.

Mazingira challenge is a yearly inter-university competition whose main aim is to raise awareness on issues related to conservation. Students from higher learning institutions across Kenya compete in six categories.

From 2010, CEAC has participated annually at the Mazingira Challenge. This is the second time that the students are

walking away as overall winners. Their first triumph was in 2011.

During the presentation of the trophy to the College of Biological and Physical Sciences Principal, Prof. Bernard Aduda, congratulated the students and challenged them to ensure that the trophy remains in the College.

He praised Chiromo Environment Awareness Club (CEAC) for being the most active club in the College. CEAC also recently established an indigenous tree nursery at the College. The tree nursery was launched in October 2015.

CBPS Procurement Symposium

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a respective website. He added that an additional way organizations can increase traffic to their website is by linking other websites. Mr. Tuka advised the suppliers to link the University of Nairobi as well as the College site on their websites.

Mr. Fredrick Otieno, the College Procurement officer, said that deliveries would be expedited for the effectiveness of stakeholders' satisfaction. In his re-



Mr. J. Mokaya Procurement Manager University of Nairobi

marks, he said that suppliers are ranked based on delivery efficiency, product quality and innovation and not only on the affordability of the product.

The suppliers commended the University for giving the highest number of tenders as an educational institution and for giving equal opportunities to the dis-

UON CHALLENGED TO PRODUCE MORE PHD'S

University of Nairobi has been challenged to be at the forefront in producing more PhDs to cater for emerging institutions of higher learning across the country.

This was emphasized during a PhD supervision

training of trainers workshop addressing the importance of quality research and scholarly excellence.

The workshop held on October 6, 2015 was officially

opened by Prof. Lucy Irungu, Deputy Vice - Chancellor, Research Production and Extension (RPE).

workshop highlighted an increase in quality research work which has been enhanced through countering repeat research topics and having a management system in place to monitor students' research progress. Through the Board of Post-

The

work.

“There has been a positive step towards access to higher education with the increase in numerous university establishments and a rise in university academic programs,” Prof. Irungu said. “However, as the oldest institution of higher learning in the country; University of Nairobi needs to lead by producing more PhDs,” she added.

Prof. Bernard Aduda, Principal College of Biological and Physical Sciences echoed similar sentiments stating that the responsibilities for the University is huge. “I am optimistic that the College is

capable of producing 20 PhDs each year compared to 15 PhDs produced the previous year,” he said.



DVC/RPE and Participants at PhD Supervisors Training of Trainers workshop Pose for Photograph

graduate Studies (BPS), students are being provided with a manual guide on research expectations to prevent repeat research