

CBPS NEWS

INSIDE THIS ISSUE:

<i>Prof. Patel</i>	2
<i>PACN Symposium</i>	2
<i>Chura Hop Shines</i>	2
<i>Cyber Security</i>	3
<i>CBPS Alumni</i>	5
<i>NUBSA Event</i>	6
<i>Graduation</i>	7

Special points of interest:

- Prof Patel joined the Department as a student in 1962
- First in the Department of Physics to attain undergraduate degree in 1966
- He became an assistant lecturer in 1971
- First in the Department to attain a Doctorate in 1976

PROF. PATEL STILL GOING STRONG

From his agile youthful days in Kisumu Boys High School, Prof. Jayanti Purshottam Patel always knew that he would be a teacher, but he never thought that he could advance in academia to reach the peak in his education.

Brought up in Kisumu, Prof. Patel began his O-levels and developed a love for Physics and Mathematics; because little reading was required to grasp the concept in the two subjects. He did not know that this was to lead to his preminent practice in Physics for more than five decades.

Upon completion of his O-levels, Prof. Patel emerged one of the best candidates in East Africa in 1961. This landed him a scholarship at the Royal Technical College of East Africa, presently known as the University of Nairobi (UoN), where he pursued Bachelor of Science in Physics.

His is a story of firsts. Prof. Patel was the first in the department of Physics, University of Nairobi, to attain an undergraduate degree in 1966. He was also the first to attain a Doctor-

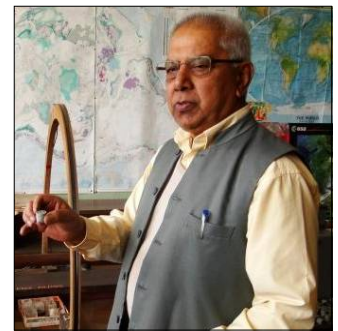
ate from the same department in 1976. This is why he attests that his greatest achievement is in academia, where he created an affiliation with researchers from the Universities of Texas, Leicester, New Mexico, Karlsruhe and Western Ontario. The researchers came together to assess the tectonic aspects of the Rift Valley-how safe the Rift Valley is, an international seismic exploration of the Rift Valley.

Such was Prof. Patel expertise, which attracted numerous opportunities from international organizations. However, he could not leave home. "Home is home, there is nothing better than home. You get appreciated and more respected in your country if you have done something useful," he says. He also enjoyed very good support from the University of Nairobi. Prof. Patel ascertains that UoN contributed tremendously to the development of Geophysics in Kenya. Geophysics, he says, is "Physics applied to the earth. Kenya was a virgin place for Geophysical research and research funds were available,"

he adds, on the development of this field where he has immensely contributed in creating an adept curriculum.

He is currently researching on geothermal exploration, exploration of magnetic core (Western, Nyanza and Coastal regions) and uranium (Homabay).

Prof. Patel has been awarded a



Prof Patel in the Laboratory

Fulbright senior fellowship award-awarded to people with distinct research capacities, among other awards, German Scientific Exchange Fellowship and Aggrey memorial fellowship and ship.

Professor Patel also knows the importance of balancing one's life. If he is not researching or giving a lecture, Prof. Patel enjoys taking walks and playing with his dogs at UoN's coffee farm in Loresho, which he does most evenings. He nostalgically remembers his youthful, energetic days where he would run for charity and in competitions representing UoN in 100 and 200 meter races. But now, age does not allow him, which is why he has stuck to

his long-time hobby in keeping a green finger. He enjoys gardening and has planted numerous trees both in Chiromo campus and at his residential estate.

In the 73 years he has lived, **Professor advises that one should know what they want in life and what will give them satisfaction.** His was Physics, where he has passionately concentrated and mentored many students. He advises those in the science field,

that they never went wrong because "Physics is the base for all sciences. If you have Physics, you can divert to any field," he concludes.



PACN SYMPOSIUM AT CHIROMO

Pan Africa Chemistry Network (PACN), Procter and Gamble (P&G) company and the Royal Society of Chemistry (RSC) organized a two 2 day scientific symposium at the University of Nairobi on 4/5th November, Chiromo Campus, College of Biological and Physical Sciences.



Prof. Wandiga with some Kenya Delegates at the Symposium

The topic of the event was “Regulatory Harmonization, Hygiene and Sustainability” and was well attended with over 200 delegates from across Africa and beyond. The symposium aimed at creating networks and collaboration opportunities between the University, experts, private sectors and also sharing the latest research outcomes and challenges with relevance to Africa.

Government Ministries were not left out as KSEF and KEBS represented the Ministry of Education Science and Technology, Trade and Industry respectively.

The PACN Congress on Biodiversity and Global challenges followed from 30th November to

2nd December at the Economic Commission for Africa (ECA) conference centre in Addis Ababa which reviewed the state of Chemical Sciences in Africa through paper presentations.

At the Congress, the Royal Society of Chemistry (RSC) announced the donations of free access to e-books to Kenya through a donation by Mr. Montagu Hyams to the RSC.

The donation will enable Kenyan Chemical Scientists, academic staff, and students to access the RSC e-books through their libraries’ subscription:

<http://pubs.rsc.org/en/ebooks>

The Royal Society of Chemistry (RSC) announced the donations of free access to e-books to Kenya through a donation by Mr. Montagu Hyams to the RSC.



Chura emerged top five among 40 technological startups that were selected to take part in Demo Africa conference, held in Nigeria on September 22, 2014.

Forty out of 600 startups which

applied, were selected to participate at the Demo Africa conference. Being top five earned Chura sponsorship from John Kerry’s- United States of America States Department- to participate in Silicon Valley pitching and networking forum with investors.

Byron Sitawa, one of Chura’s innovative members represented the startup in Nigeria in September 2014 and at the Silicon Valley in November 2014.

Chura is one of the twelve

startups at the Computing for Development Lab (C4DLab), School of Computing and Informatics. It is a web-based system startup which allows users to switch airtime between networks and exchange airtime for cash. It also facilitates buying airtime from any network using any mobile money service and distributing airtime to many phone numbers in different networks.

Investors and entrepreneurs from Silicon Valley will men-

CHURA HOP TO TOP 5 IN NIGERIA DEMO



Chura makes a Great Leap Forward

tor the startups to come up with a working business model for six months, beginning November 2014. The best three out of the five startups, will be invited to London to be awarded the African Prize for engineering innovation.

Other startups at C4DLab include: Creatix Systems, Farmdrive, Ideal Animations, Intelligent traffic, Jibonde Fresh, RocKeSci, Telvic Parking Solutions, Tevat, Texas and Throughpass Africa.

Chura comprises five members; Njogu Kinyanjui (Visual designer), Samuel Njuguna (Business Strategist), Stephanie Gaku (Communication and Accounts), Byron Sitawa (System administrator) and Jack Kinga (Product Engineer).

www.chura.co.ke

DO YOU KNOW WHAT'S GOOD FOR YOU

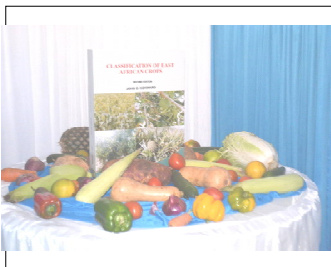
Prof. John Kokwaro launched the second edition of *Classification of East African Crops* on October 24, 2014.

The book which aims to give insight on plants that can be found in East Africa: in Kenya, Uganda as well as Tanzania, immortalizes Prof. Kokwaro's vast knowledge in Taxonomy and Ecology.

While donating 34 of the books launched to public universities, Prof Kokwaro challenged the need to know plants for consumption as well as those that should not be consumed. He added that his book would improve personal knowledge on the type of plants that one can have in their garden. "Because I am a medic, I

know which plants I should watch out for in my garden," he added. The author, Prof. Kokwaro, who has 46 years teaching experience in the fields of Plant Taxonomy and Economy Botany, dedicated his book to the late Pro.David Wasawo and Prof. Odhiambo, renowned professors at the College of Biological and Physical Sciences.

Prof. Kokwaro has researched and published over ten books in Plant Taxonomy and Economy Botany and mentored many science students. In addition, he has tagged all trees at University of Nairobi (UoN) main campus in a project he embarked on, dubbed *Botanical walk through UoN*. In the project, he tagged trees indicating both specie and taxonomy names. He is currently a professor at the School of Biological Sciences.



A copy of Prof Kokwaro's book on display

Prof. Mbithi, Deputy Vice Chancellor Administration and Finance, Prof. Mutoro, Deputy Vice Chancellor Academic Affairs and Mr. Josphat Kirimania, University of Nairobi Press editor, were among distinguished guests who graced the event.

CYBERSECURITY TRAINING ATTRACTS CORPORATES



Mr. Kamau (center) facilitating the Practical session in the training

Staff from Capital Markets Authority and Kenyatta National Hospital were among those trained in the second Cyber-security training, at the School of Computing and Informatics from 5-7th November 2014.

The three-day training which was coordinated by Dr. Tonny Omwansa, Computing for Development Lab (C4DLab) coordinator and lecturer at the School of Computing and In-

formatics (SCI), took trainees through various essential elements of Cyber-security. These included cyber-security terminology and the national Cyber-security strategy as well as barriers to improving the same. Other topics covered included economics of cyber-security, cyber-security policy, trends in cyber-security and cyber-attack characteristics.

Others who attended the training were students from University of Nairobi's Faculty of Arts and School of Computing and Informatics, employees of Moi University, Logic outsource and Mo sound events. Dr. Christopher Chepken, SCI lecturer as well as Mr. Evans Kahuthu and ICT Authority's Project Manager were also key facilitators during the training.



Participants receive certificates from Dr. Omwansa C4D Lab coordinator after successful completion of the course

PROMOTIONS

The following were promoted to Associate Professor:

- Prof. Elijah M. Akunda
- Prof. Jacques Kabaru
- Prof. Amir Yusuf
- Prof. D. K. Kariuki
- Prof. Hellen Njenga
- Prof. Jacob Kithinji

CBPS News team takes the opportunity to Congratulate all



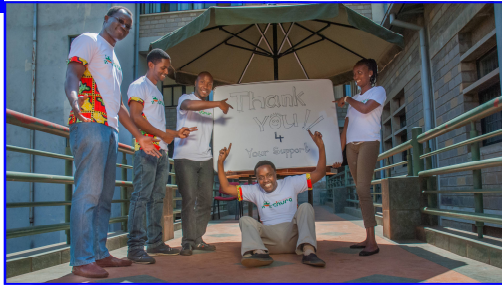
Prof. Kokwaro, has 46 years teaching experience in the fields of Plant Taxonomy and Economy Botany

PICTORIALS

Book Launch



Chura C4DLab Start up



Cyber Security Training



CHIROMO ALUMNI CHAPTER OFFICIALLY LAUNCHED

The 12th Alumni Chapter of the University of Nairobi has been launched. Chiromo Campus Alumni Chapter was officially launched on December 10, 2014 by Prof. Fred Sigor, Permanent Secretary State Department of Livestock.

Prof. Sigor officially launched the chapter where he highlighted the need for Chiromo Campus alumni to be part of the solutions in managing health problems through research. Prof. Sigor is also a UoN alumni and a gold life member of University of Nairobi Alumni Association (UONAA). Currently, alumni of Chiromo Campus stands at 15,360 from 1970 to date.

Representing the Vice Chancellor, Prof. Peter Mbithi, noted that alumni are the pillars of growth in world class excellence of UoN. He also



P.S. Livestock Prof. Fred Sigor, Chancellor Dr. Vijoo Rattansi and distinguished guests officially launch the Chiromo Campus Alumni Chapter

commended the most active alumni class, class of 1990, for their coordination and initiation to establish Chiromo Campus Alumni Chapter. He urged class of 1990 to move forward to great heights of success and to be a catalyst for alumni platform for the future.

Distinguished guests who witnessed the launch

were Dr. Vijoo Rattansi, Chancellor University of Nairobi, Dr. Idle Farah, Chair UoN Council, Dr. Wilson Songa, Permanent Secretary Industrialization and Enterprise Development, Prof. Obudho, UONAA Chair, Prof. Mwabora, Chair Chiromo Campus Alumni Chapter and Class of 1990 Chair, Mr. Davis Thuo, Research and Development Manager at Delmonte Kenya Limited.

Already launched chapters include School of Pharmacy, School of Computing and Informatics, College of Architecture and Engineering, School of Journalism, Masters Business Administration, Human Medicine, Agriculture, Veterinary Medicine, Range Management and Institute of Diplomacy and International Studies

CBPS PICTORIAL

Pan African Chemistry Network Regulatory Harmonization, Hygiene & Sustainability International Symposium



NAIROBI UNIVERSITY BIOCHEMISTRY STUDENTS ASSOCIATION CAREER DAY

Speakers drawn from the field of Forensic, Bioinformatics, Manufacturing and Engineering, took students through career opportunities in Bioinformatics, building Curriculum



Attentive NUBSA members taking stock of their options

Vitae and Networking, during a one-day career fair day held on Friday 10, 2014.

The fair themed Science, Technology and Innovation as an opportunity for sustainable development was organized by Nairobi University Biochemistry Students Association (NUBSA). The event gave students an opportunity to interact

with alumni and professionals in the science field, at the College of Biological and Physical Sciences (CBPS).

Speaking during the fair, Dr. Dan - International Centre of Insect Physiology and Ecology (ICIPE), noted that the world is very competitive and he urged the students to learn something extra that would make them stand out among their peers. This includes taking extra courses and being certified in various fields.

Jacqueline Karachi, Business Manager Royal Phillips encouraged students to make use of networking opportunities as well as the use of LinkedIn to

Bioinformatics was valued at \$60 Billion Dollars in 2005

market themselves.

On the other hand, Engineer Catherine Nyambala, recommended students to take part in volunteering opportunities so as to build networks while seeking employment. She also recommended attendance of conferences and seminars and taking part in challenges.

Ben Kulohoma, took the students through diverse career opportunities available in Bioinformatics. These include:

Phylogeneticist, Scientific Curator, BioStatician among other careers. Mr. Kulohoma informed the students that just as at 2005, Bioinformatics was valued at \$60 Billion Dollars and these numbers kept on growing because nature is diverse, complex and hard to represent that is why our understanding of nature is incomplete, hence need for continuous research.

Jabez Somo, a former Forensic

student and business man, implored the students to convert the science they have learned into an enterprise and not to think about where to work, but what to become.

Additional topics discussed during the career fair included: Diversifying/Adapting into different innovative opportunities: Reality slap, Bioscience and Entrepreneurship, Research as a Career, Bio awareness and Youth empowerment,

Opportunities in Science and Technology in Africa and Globally and Impactful CV Writing, Job search, Networking and Interviews.

College of Biological and Physical Sciences (CBPS) also played host to students from Technical University of Kenya, Kenyatta University and Jomo Kenyatta University of Agricultural and Technology. Organizations which played a key role towards the success of the event were Kenya Youth Biochemistry Network and



Speakers at the NUBSA Career Fair Day

Nescafe.

At the end of the engaging career fair, students were left to ponder on the wise words of Albert Einstein: Education is what remains after one has forgotten what one has learned in school

PROMOTIONS

The following were also promoted:

- Prof. H. Ochanda
- Prof J. Khalaghai
- Prof. M. Manene
- Prof. P. Weke
- Prof. J.Mwabora
- Dr. K. Kithure
- Dr. G. Obiero (Director CEBIB)
- Mr. K Mbali (Registrar)
- Ms. Lucy Kithae (Ag. Bursar)

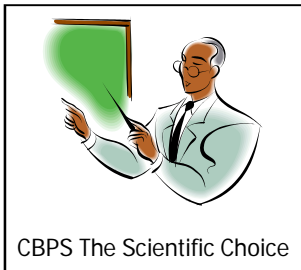
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CBPS GRADUATES THE HIGHEST NUMBER OF PHD'S



Graduands at the 2014 graduation ceremony

At least 950 have graduated from the College of Biological and Physical Sciences in the year 2014. The College also registered the highest number of PhD grandaunts during the August 2014 graduation, where 8 out of 19 grandaunts were conferred with Doctor of Philosophy degrees.

In addition, the College has produced best overall students consecutively for two years. During the

August 2013 graduation, the best overall student was Juma Victor Ogesa, Bachelor of Science in Mathematics. Moreover, at the August 2014 graduation, Elias Ndaru, Bsc Industrial Chemistry, emerged the best overall student.

So far, 15, 360 have graduated from CBPS since 1970 with the College producing the best scientists to regional and global markets in the fields of computing, mathematics, biotechnology and bioinformatics, physics, meteorology, chemistry, geology, botany, zoology and climate change.

At the December 2014 graduation, the University conferred 8,803 grandaunts. This was the last graduation being presided

over by Prof. George Magoha, outgoing University of Nairobi Vice-Chancellor. Prof. Peter Mbithi, current Deputy Vice Chancellor Administration and Finance, will be the new Vice-Chancellor following his appointment effective January 6, 2015. During the graduation, Prof. Magoha urged the University fraternity to be at the forefront in taking part in initiatives for the development of the society; these include free legal clinics, charity walks and environmental conservation. This is notable as the University recently boosted Beyond Zero Campaign, an initiative headed by first lady, Mrs. Margaret Kenyatta, with Ksh. 5 Million. The College congratulates Class of 2014!

HOW RIPE ARE YOUR FRUITS?

Is the only way to check and appropriately price how ripe a fruit is, by squeezing?

David Muriuki Karibe, has conducted a research and has come up with a software innovation that analyses fruit quality and checks its ripeness.

The software uses remote sensing by showing a blue light, from a light emitting diode (LED), through the skin of the fruit. The light emitted is then analysed for fruit quality.

Not only does the software check for fruit quality and ripeness, it can also grade fruits for their freshness,



David Muriuki (second right) showcasing a fruit quality analyzing software at the Nairobi Show 2014

them.

With the expected roll out of the prototype, this innovation, which has cost at least Ksh. 500,000.00- funded by the University of Nairobi and Karibe's savings- is set to greatly benefit fresh produce farmers, both large scale and small-scale.

The farmers will be able to identify the best possible time to harvest fruits. Thus, they would be relieved of losses they make due to fruit rotting, caused by over-ripening. Some of the fruits which were showcased in assessing fruit quality include: mangoes, oranges, tomatoes and avocados.

PROMOTIONS

- Dr. J. Wagacha (Snr. Lecturer)
- Mr J. Mweha (Snr. Internal Auditor)
- Mr. B. Midigo (Headman)
- Mr. E. Okello (Assistant Caretaker)

NUBSA Career Day



UNADSAC-ONUSS SCHOOL OUTREACH

Student representatives from University of Nairobi Anti-Drugs and Substance Abuse Club (UNADSAC) and Organization of Nairobi University Science Students (ONUSS) organized an event to Gathuri Secondary and Primary Schools Gatundu, Kiambu County on October 3, 2014 aimed at challenging the students and pupils to

strive to make it to university, irrespective of being in a village school.

The University was represented by a delegation of forty two people including seven members of staff. Dr. Deresse of Chemistry Department began by giving an enthusiastic talk to the high school students, on the chemistry be-

hind addictions. The crew from the University Health Services represented by Dr. Mapelu and Mrs Nyaga, showed the relationship between substance abuse and the HIV and AIDS menace. MrsNyaga also sensitized students on reproductive health matters during the outreach.

PICTORIALS

Fresher Registration



Graduation



PICTORIALS

Maintenance



Chancellor's Visit to College of Biological & Physical Sciences

