

CEDAT

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COLLEGE OF ENGINEERING, DESIGN, ART & TECHNOLOGY



President Museveni (C) and the VC, Prof. Baryamureeba pose for a picture with the Vechile Design Team

President Museveni launches the Kiira EV

President Yoweri Museveni on Thursday November 24, 2011, launched Makerere University's KIIRA EV, and two lines of production in Food Science and Technology. This was during his visit to Makerere University. The President was impressed by the number of innovations going on at Uganda's premier and public university and asked the relevant ministries to look into more funding for the University and better remuneration for its staff.

The President on arrival first toured some of the innovations from the Colleges which included, the low cost irrigation pump- College of Engineering Design, Art and Technology (CEDAT); the Incubation Centre- College of Agricultural and Environmental Sciences (CAES); the role of natural products in health care delivery: Showcasing herbal/medicinal products in the treatment of Cancer and Diabetes-College of Natural Sciences (CoNAS); Extending HIV/AIDS testing and counseling, TB testing to inaccessible areas-College of Health Sciences (CHS); the Teacher: Pupil attendance monitoring tool — College of Computing and Information Sciences (CoCIS) and a training/education model that aims at universal production and development- College of Veterinary Medicine, Animal



President Museveni is driven by Mr Paul Musasizi

Resources and Bio Security (CoVAB)

With a smile on his face, the Head of State was then driven in the KIIRA EV from the exhibition ground at CEDAT upper parking to Food Science and Technology, where he addressed members of staff and students.

"I have told the ministries that in terms of remuneration, Scientists should be remunerated up to near international standards. We are going to increase

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President Museveni receives a medallion from the Chancellor, Prof. Mondo Kagonyera



The President arrives to launch the Kiira Ev



The President views one of the projects exhibited



Prof. Byaruhanga demonstrating how the low cost irrigation pump works

the support for the Institutions. I have nothing but happiness and pleasure to have been here to launch the KIIRA EV and the two production lines in Food Technology. I encourage you to continue. Do not worry about the money, we shall look for it. With our oil, the issue of money will be nothing," he emphasized amidst cheer from the gathering. The President thanked both students and staff of Makerere University for the innovations and promised to come back at a later date to see more.

His Excellency described these innovations at Makerere as a renaissance, adding that the institution has woken up from 'a deep slumber,' that has taken its toll on the African continent. He said Africa regressed technologically during the colonial era, but was glad that Makerere University is taking lead in innovations.

"I must salute Makerere. I will give you all the support. This is just a small beginning. Africa being out of technology has led to slavery, colonialism and marginalization but we can reverse and go back. I am really happy with what is happening here. You can be sure of all the support from Government in spite of our limited resources," he added.

In his address, the Vice Chancellor of Makerere University, Prof. Venansius Baryamureeba, thanked Government for supporting Makerere, adding that the University was committed to graduating students with potential to impact on society. He added that Makerere embraces commercialization and is ready for mass production in partnership with the Private Sector. This however awaits the Public-Private-Partnership (PPP) bill before Parliament, to be passed into law.

The Chancellor of Makerere University, Prof. Mondo Kagonyera, asked Government to have a special unit in State House handling Small and Medium Enterprises, so that brilliant projects from students are not frustrated at the implementation phase.

The Deputy Vice Chancellor, Finance and Administration, Prof. Tickodri Togboa, who was the lead Researcher for the KIIRA EV - was proud that Makerere's Centre for Research in Transport Technologies was beginning to bear fruit, and revealed that by June 2013, the Centre will have built an electric bus. He thanked the team that had put efforts in having the KIIRA EV take off and asked them not to tire.

CEDAT Open Day

November 18-19

The College of Engineering, Design, Art and Technology (CEDAT) on November 18th started its two-day exhibition. A colourful ceremony was presided over by the University Vice Chancellor Professor Venansius Baryamureeba. The students and researchers of the college showcased about 100 projects that they have been working on. Among the projects on display included the Kiira EV, irrigation pumps, a fruit drier, architectural drawings, paintings, sculptures, pottery, weaving, MakaPads, solar panels, a seed planter, robots, software driven innovations, a briquette machine and a solar water heater.

The function started with cutting of tape that was put around the Kiira EV, as a sign of officially opening the exhibition. It was followed by a tour of the exhibition and concluded with speeches.

The Principal of CEDAT, Dr. Barnabas Nawangwe, and the Vice Chancellor thanked the government for the financial support that the university receives. CEDAT receives Shs5 billion for equipping laboratories, industrial training and research annually from the government.

Part of this money supports 10 research projects in the college.

Prof. Baryamureeba also thanked the university's development partners like Sweden, Norway, the Japan government and the Rockefeller Foundation among others. The VC challenged the students to come up with more relevant innovations that address the needs of society.

He congratulated the Students of Engineering who worked tirelessly to produce the first electric vehicle. "The Kiira EV is a green revolution for it is environmentally friendly. This car has zero emissions and comes as an alternative transport solution totally dependent on green energy. Pollution has greatly affected the environment and it is this that we want to eliminate," he said.

"It is through such technological innovations that Makerere University can propel the private sector and drive Uganda's economy in the 21st Century."

The exhibition ended on Saturday November 19th at 10pm with a fashion show from students of The Margaret Trowel School of Industrial and Fine Art.



Some of the students that turned up for the two-day event



A student looks at one of the architectural impressions on display





Some of the art pieces on display

Test-driving the Kiira EV



The test-drive was flagged off by the VC, Prof. Baryamureeba (R)

November 1st 2011

The Vehicle Design Team successfully conducted the first test drive of its flagship concept, the 2-seater Electric vehicle. Code named the Kiira-EV, the flashy green vehicle made its first test runs around campus roads on the bright Tuesday, 1st November 2011 afternoon, with crowds eagerly craning their necks to catch a glimpse of the car as it zipped around. At the brief official flag off ceremony officiated by the Vice Chancellor Professor Venansius Baryamureeba, the audience; mostly made up of students and members of the media bore the assault of the afternoon sunshine to listen to remarks from the project's Principal Investigator and Deputy Vice Chancellor (Finance and Administration) Dr. S.S. Tickodri-Togboa. In his remarks, the Vice Chancellor commended the Principal, College of Engineering, Design, Art and Technology for successfully steering the college to the yet another historical event. He extolled the Principal Investigator and his team for working tirelessly to ensure that the concept was successfully transformed into Uganda's first electric vehicle.

Soon after the test-drive, the media was thirsty for more information on the car. So the Vehicle Deign Team was invited

for a talk show The Hot Seat at Kfm radio in Namuyongo at 7pm on November 1st. The next day, the team was hosted on Channel 44's Arise and Shine talk show at 7am the next day. Up until today, the team is still giving interviews and hosting several people including the Inspector General of Police who visited the team on November 24th, the former vice president of Apple Mr Don Strickland

Successful defence of PhD thesis



Mr Fredrick Omolo on December 16th successfully defended his PhD thesis titled EVOLUTION OF TOWN PLANNING IDEAS, PLANS AND THEIR IMPLEMENTATION IN KAMPALA CITY 1903-2004

The well attended defence took place in the College Conference Hall. It was atended by his mother, academic staff, friends, supervisors, examinaters and students of the college among others.

Through a descriptive and exploratory approach, and by review and deduction of archival and documentary resources, supplemented by empirical evidence from case studies, this thesis traces, analyses

and describes the historic trajectory of planning

events in Kampala City,

Uganda, since the inception of modern town planning in 1903, and runs through the various planning episodes of 1912, 1919, 1930, 1951, 1963/4, 1972 and 1994. The planning ideas at interplay in each planning period and their expression in planning schemes vis-àvis spatial outcomes form the major focus.

The study results show the existence of two distinct landscapes; Mengo for the Native Baganda peoples and Kampala for the Europeans, a dualism that existed for much of the period before 1968. Modern town planning was particularly applied to the colonial city while the native city grew with little attempts to planning. Four main ideas are identified as having informed planning and transformed Kampala – first, the utopian ideals of the century; secondly, "the mosquito theory" and the general health concern and fear of catching 'native' diseases – malaria and plague; thirdly, racial segregation and fourth, an influx of migrant labour into Kampala City, and attempts to meet an expanding urban need in the immediate post war years and after independence in 1962 saw the transfer and/or the transposition of the modernist and in particular, of the new towns planning ideas – which were particularly expressed in the plans of 1963-1968 by the United Nations Planning Mission.

The study concludes by highlighting some of the reflections and the implications for future planning, considerations which perhaps may be useful for the planners of tomorrow and

Feats of Ugandan pottery





Nov. 4th-26th

This exhibition has now come bigger and better. Comprised of 6 artists and a traditional potter based in Busega, a historical renowned base for Pre-colonial Buganda Kingdom potters.

Pottery is known to be one of the oldest arts of mankind (Smashing pots, Feats of clay from Africa, Barley Nigel). Over the whole African continent indigenous production is enormous. However, in Uganda pottery is seen dramatically endangered by being displaced by modern vessels of aluminum, enamelware, plastic or more informal containers from western-style industrial packaging (Kwesiga, 2005).



Feats of Uganda pottery imply beauty, elegance and ingenuity with an aim of gaining wider appreciation from the local population and the world over. The artists have embraced the fact that clay is the one of the most enduring materials and that the contribution of pottery to our general knowledge of the past is second to none.

Therefore, the group's glamorous and artistic pottery projects the 3 colors: - black, white and brown, results of their mastery to use local technologies which strongly reinterprets the role of pre-historical intercustrine pottery.

THE ARTISTS

Ssekibaala Andrew

Working under the same roof has not completely blocked individual instincts. Andrew an instructor at St. Lawrence University Fine Art Department invests much of his efforts in making naturalistic depictions. Aquatic life is highly significant in his vases and plates. The wall masks also exhibit his hand forming mastery as he incorporates West African art inspirations in his package. However, he does little to give a chance of deviation from the usual scary nature of most African masks. Perhaps, this usual characteristic affirms their powerfulness of artifacts across Africa. He has exhibited both locally and internationally.

Mpindi Ronald

Ronald's being away from home has not terminated his abilities and pottery roots. His forms and designs reflect the ideologies of his origin. Mpindi who is currently pursuing a masters' degree in Japan strongly affirms his desire for continuity of his experiments with different firing techniques. The diversity of his surface finishing is as a result of different firing models including reduction by use of gas and electricity and oxidation using electricity and firewood.

However, the impact of his being in the Diaspora for the past two years is undeniably significant when he blends some of his ideas with Japanese pottery forms which he denies that this does not alienate him but enriches his perception about pottery. He has exhibited his practical skills and works in countries like USA, Britain, Kenya, and Japan besides his home country.



The exhibition was officially opened by the Principal. Below: Dr. Kyayune talks to one of the guests



Bukenya Tony

A versatile profession teacher he is. The smallness of most of his works strongly affirms to the fact that art is always in transition and eventually acquires new spaces and therefore new meanings. The small spiked pots give a new dimension of values. They consciously symbolize a bigger picture of Buganda cultural pottery during the Pre-colonial times. Bringing up these artifacts on stage is as important as glorifying our native religion which is ill-analyzed and ill-understood by many. Bukenya therefore projects African culture and pride through his forms.

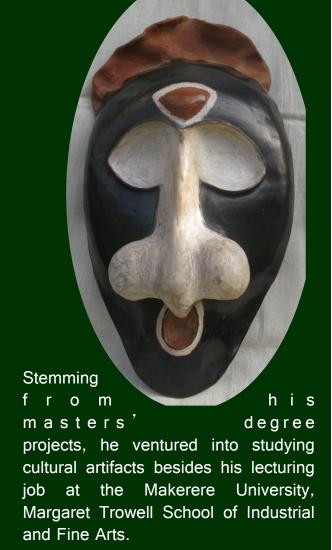
He also goes ahead to show his dissatisfaction about the current regime through his pieces themed "wrinkles of the regime!!! Ani musilu??" One would sympathise with him for the efforts to use art as an avenue to raise such sensitive issues. However, how many of our leaders would bother to attend (interpret) such artifacts and text to get this awakening message especially at this post political campaign time and moment?? He has showcased his works both locally and internationally.

Omadi Michael

Omadi is a natural gifted illustrator. His skills are undeniably significant in his flat surface pieces. He has extended some of these skills to sculpture. The aesthetic look of the many sculptures at Igongo cultural museum in Mbarara is attributed to his mastery in illustrative drawing. He has exhibited in Uganda and South Korea.

Balaba Edward

A reserved artist he is, Edward creates organic forms that speak volumes of words. They are exclusively cultural manifestations.



His work seem to wonder in the endless space of imagination giving him forms, which with scrutiny depict African cultural values, taboos, aspirations in the intercustrine region. One would not be wrong to suggest that they are rightful substitution of the shrine-spiked pots characterized by numerous spout openings. However, unlike the ordinary cultural pots he does not forget to attach an aesthetic outlook particularly using anthill soil slip on some. This may be embraced by a foreigner but furiously rubbished by a native as an abuse of the etiquette of the function of

the idea. He has showcased his works both locally and internationally.

Bomboka Henry

Bomboka is a Fine Arts student at St. Lawrence University, Kampala. His ambitious drive and enthusiasm towards learning has earned him this opportunity to showcase his creativity. Passion and patience are highly noticeable in his surface finish. He is greatly inspired by the locally made pottery forms, which he splendidly transforms with a contemporary touch. However, since the sky is the limit, Henry has got a branch of experience to pick up as far as marrying beauty and function is concerned. Working alongside a team of experts (some of them exhibiting in this show) has helped Henry to achieve a good creative grounding.

Bukenya Paul

This gentleman has been faithful to the group's cooperation with him — for he works from a good distance from the rest of the team. His father sparked off his passion for pottery. He learnt a number of hand forming skills from his father who was also a potter.

He has stuck with the group to get to new heights of his career. He however, asserts that he does not want to tamper with his cultural originality. His production ranges from traditional water pots (ensuwa), bowls (obubya), cooking pots (obusaka), clay water bottles (ensumbi), to poultry warming pots.



Some of the people that turned up for the opening of the exhibition

Italian Ambassador Visits CEDAT



The Italian Ambassador, Stefano A. Dejak (R), the Principal of CEDAT, Assoc.Prof. Barnabas Nawangwe and another official from the Italian embassy during the meeting

November 21st

The Italian Ambassador, Stefano A. Dejak on Monday November 21, 2011 visited CEDAT and held a meeting with the Principal, Deputy Principal, Deans and Chair of Departments.

The Ambassador is interested in continuing and growing the corporation that the college already has with Italy. This will include establishing new links with the private sector in Italy. The areas of interest include engineering, design, construction and architecture.

Other areas are; Access to safe water for communities, ICT- building sustainable communication for rural communities, heritage conservation, design and fashion. The Ambassador hopes that this collaboration will present a win-win situation for all parties involved.

He reassured the team that during his four years of service in Uganda, he will help establish development contacts as well as exchange visits for different people. The meeting ended with an agreement to have the college write a concept paper that will guide our collaboration. The Italian Government has previously supported CEDAT, under the Italian Corporation, in areas of laboratory equipment, infrastructure and research.



Officials of Benadir University, Somalia visit CEDAT



One of the officials (L) and the Principal

November 25th

Two officials from Benadir University in Somalia visited the Principal and met with him, deans and chair of departments. Mohamed Abdukadir Nur, the Vice Rector and Dr Mohamed Mohamoud Hassan, the Dean, Faculty of Medicine want to establish collaboration with Makerere University. They want to learn from Makerere as well as offer us a new window. They want to review their curriculum with the help of Makerere University, engage in student and staff exchange as well as post-graduate training. They intend to explore the possibility of quotas for Benadir students as well as admissions for Benadir staff to CEDAT.

The two officials, who were happy to be here, noted that the

collaboration will allow their young university to grow. Benadir University was started in 2002 and has seven (7) faculties of Medicine, Engineering, Civil and Electronic engineering, Telecommunication Engineering, Education, Computer Science, IT, Sharia Law, Agriculture and Veterinary Medicine. It has a student population of 1,300.

The Principal of CEDAT, Assoc. Prof. Dr. Barnabas Nawangwe stated that this is a very welcome collaboration and the CEDAT Administration is looking forward to the future of this new found partnership. He also stated that the Administration would do everything possible to support it.

CWRC Public lecture by Dr. Roc Berenguer

A public lecture organised by the Community Wireless Resource Centre (CWRC) on Wednesday, 7th December 2011 was conducted by Dr. Roc Berenguer of University of Navarra, Spain. Dr. Berenguer was hosted by the Department of Electrical and Computer Engineering and addressed the topic 'Establishing a Wireless Communication Testbed'. Some of the key emerging issues were that it is important that CEDAT students are well ground in the theory so as to be well placed to identify solutions for the various problems



in our local communities. The lecture highlighted various applications for wireless communications including the mobile phones, automatic braking of cars due to wireless sensing of objects upfront, support for the blind via a glasses with a wirelessly connected camera to the 'retina', remote monitoring of tire temperatures for electric cars, etc. Some of the concerns we would have to address here in Uganda include low cost,

low energy wireless solutions.

About CWRC: Based on the theory gained in class and results from simulations they conduct, students would be able to take their wireless innovations to the next level by first confirming the specifications and performance with the use of 3 key equipment: spectrum analyzer, vector network analyzer and signal generators. The department has recently acquired a modern set of spectrum analyzer and vector network analyzer through the MSI grant. (The three-day specialised training by Prof. Roc prior to the public lecture was on the use of this set of equipment).

The CWRC is a research and training centre established in 2006 within the Department of Electrical and Computer Engineering, College of Engineering, Design, Art and Technology (CEDAT), Makerere University with support from the International Development Research Centre (IDRC).



CEDAT library emerges best December 12th

Our library was the best among other college libraries. The judgment was based on how the library performed according to the University Library Annual Strategic Implementation Plan, 2011. The Library Staff got an award. LEFT: The Librarian, Mr Musoke wilberforce lolds the plaque.

Clifton admitted as a Fellow

December 13th

Mr. John Clifton, Senior Surveying Assistant in Civil and Environmental Engineering Department, was admitted to the Chartered Institution of Civil Engineering Surveyors of UK as Fellow. Congratulations and all the best Mr. Clifton!

Students get visit from MIT Fellow

November 2nd

Students of the College on November 2nd got a visit from Mr Campbell Mayer; Fellow of the Legatum Centre at Massachusetts Institute of Technology.

He addressed students on the prospects that MIT offers. He said MIT administers a competitive fellowship program for select MIT students who wish to develop innovative businesses that promote prosperity in the developing world. The program is open to incoming and current MIT graduate students, across all academic and professional disciplines, who are committed to implementing their business plans upon graduation. Over the course of the fellowship year, the Legatum Center provides financial assistance, business plan coaching, specialized seminars, and opportunities for Fellows to engage with leading entrepreneurs, investors, and innovators.

He encouraged students to apply to join MIT for a change to win the scholarship.

MES Afternoon

November 7th

MES Afternoons are student interactive sessions which act as a platform for different engineering students to socialize and also interact with professional engineers on different issues affecting their academic lives which include but aren't limited to academics, social events, politics, financial issues. These afternoons are organized by Makerere Engineering Society. Different speakers from different walks of life are invited to give talks to students: This acts as a motivation to young engineers.

This year's inaugural MES Afternoon was held on 7th November and the event was opened by Dr. Barnabas Nawangwe, an honorary member of UIPE and the guest speakers were Eng. Jackson Mubangizi, the President of UIPE and Eng. Godfrey Mutabazi-Executive Director of Uganda Communications Commission.

The CEDAT conference hall was full to capacity as the MES Afternoon acted as a welcome party for the 1st year students to the School of Engineering.

UIP conference

November 17th

This was followed by the annual UIPE outreach Conference to Makerere University which attracted different professional engineers from institutions like UNBS, Mott McDonald CEA Ltd, UNRA, etc. who had an Q&A approach to the theme of the day which was the "Role of the Young Engineer to the Community"

President UIPE presided over the above event with the help of the treasurer, UIPE Kampala branch- Ms. Angella Kirabo. We are really grateful to UIPE for the different motivational and professional assistance, advice and help offered to its young student members.

