# HIGHER EDUCATION EXCELLENCE

#### **MARCH 2018**



### Introducing the ACE 1 Newsletter



In line with improving communications and engagement among stakeholders within the network of the first phase of African Higher Education Centers of Excellence Project, the Regional Facilitation Unit, AAU introduces the ACE I monthly Newsletter. This Newsletter will serve as an additional communication channel for the dissemination of quality African Higher Education Centers of Excellence related information to keep the network and other stakeholders informed and to improve the sharing of information and knowledge.

The ACE 1 project has as its objective 'to promote regional specialization among participating universities in areas that address regional challenges, strengthen the capacities of these universities to deliver quality training and applied research and also, to meet the labor market demands for specific skills is been realized through workshops, training, seminars, scholarships, internships and partnerships.

This newsletter will on a monthly basis feature various activities, milestones, new developments and key undertakings by the ACEs in line with the project's objectives.

#### 2iE to host 9<sup>th</sup> ACE Workshop



Institut
International
d'Ingénierie de
l'Eau et de
environment,
Ouagadougou,
Burkina Faso.

The Ninth African Higher Education Centres of Excellence (ACE) Project Workshop will take place at 2iE (Institut International d'Ingénierie de l'Eau et de l'Environment) Ouagadougou, Burkina Faso. This two-day event is slated for May 8-9, 2018.

2iE is the first ACE institution to host an ACE workshop since the inception of the project. Participants at the ninth ACE workshop will include representatives of the Centres, subject matter experts in the thematic areas of Agriculture, Health and Science, Technology, Engineering and Mathematics (STEM) as well as representatives of the World Bank and the Association of African Universities (AAU).

The workshop will feature novel activities such as the Africa Higher Education Fair slated for Monday May 7, 2018. The fair will create an avenue for the Centres to showcase their products and activities. ACEs are further encouraged to ensure the participation of students from their centers in the fair to share information, learn from others and network among themselves.

Prior to the workshop, the 12<sup>th</sup> ACE Project Steering Committee Meeting will take place on Monday May 7, 2018

Since its inception in 2014, the African Centres of Excellence has organized 7 workshops for the 22 Centres in ACE I and one joint workshop for ACE I and II.

## PAMI's Research to Provide Alternative Source of Power for Nigeria

Dr. Rasheed Adamu Abubakar Executive Secretary, NUC (fourth from right) with staff and students from PAMI



The Pan African Materials Institute (PAMI), Nigeria, has conducted a research in alternative power generation and supply to serve Nigeria's increasing demand for electricity. The research labelled 'the light of the future' employs the use of locally sourced materials processed into organic solar cells, light emitting devices and batteries. These organic solar cells also known as plastic solar cells utilizes organic polymers to produce electricity from sunlight. They are known to be more cost effective compared to other sources of renewable energy.

Using pressure- assisted systems, higher efficiencies have been achieved in these devices. The Center applies contemporary engineering principles in the development of these materials. The focus of the Research is to effectively utilize the relatively abundant mineral resources to develop tailor made products to address developmental challenges. This initiative has fueled partnerships with organizations with similar objectives. Notable among them is the Solar Energy Society of Nigeria.

The Pan African Materials Institute is one of the 22 African Centers of Excellence funded by the World Bank. PAMI is hosted by the African University of Science and Technology, Abuja, Nigeria. This year, the Center anticipates undertaking problem solving Researches and increased global partnerships. In addition, PAMI seeks to continue offering courses to increase capacity in specialized skills acquisition and also award more scholarships to expand research and learning opportunities across the region.

### ACEGID Performs Diagnosis of Monkey Pox Disease



ACEGID researchers at work

The African Centre of Excellence in Genomics of Infectious Diseases (ACEGID), has been contracted by the Nigerian Center for Disease Control (NCDC) to perform accurate diagnosis of monkey pox. In October 2017, Nigerians were exposed to an outbreak of the Monkey Pox disease which affected over 43 people in less than a month. The NCDC sent over 100 suspected samples to ACEGID laboratories for diagnosis. ACEGID utilized Genomic tools at its laboratories to detect the presence of the monkey pox virus in the suspected samples. ACEGID reports that, the viral load in all the confirmed positive samples were determined and efforts are ongoing to sequence the whole genome of the monkey pox virus using the Illumina MiSeq next generation sequencing platform. This technique would give a better profile of the virus as well as other pathogens that may be present in the samples. The Center is known for carrying out diagnosis research. In the 2014 Ebola Virus Disease outbreak, ACEGID performed accurate diagnosis of the first case of Ebola in Sierra Leone and Nigeria and also developed a 10 minute rapid diagnosis test (RDT) for the virus. The Center is credited with the use of clinical sequencing to uncover the origin and evolution of Lassa virus and developed a new pan-Lassa fever rapid diagnostic test kit for diagnosis of the disease.

This year, ACEGID plans to undertake more workshops in Molecular Diagnostics to build the capacities of African students and scientists. It also aims to sensitize young science students and teachers about genomics and its applications. The centre will embark on its regular Secondary School Outreach Program where High School students are hosted at ACEGID laboratories.

## PAMI Develops Breast Cancer Treatment

The Pan African Materials Institute (PAMI) has developed home-grown treatment options for breast cancer in women. This research falls in line with the Centre's aim to develop early diagnosis and treatment methods for diseases that challenges the continent. Currently, animal experiments are on-going to test the effectiveness of the locally developed drug and the receptors in animal models as well as phantoms.

An institutional ethics committee is actively reviewing the ethical conduct of the research efforts, in order to maintain world-class standards. PAMI plans to carry out clinical trials on human subjects once the outcomes of the animal model and phantoms are concluded. The research was initiated by one of the Centre's PhD students, Theresa Ezenwafor.



Executive Secretary of the National Universities Commission (NUC), Prof. Abubakar Rasheed (left) inspecting some of the research by PAMI students

#### CEA-CCBAD Cuts Sod for Ultra-Modern Building



Ivorian Minister of Higher Education and scientific research (in orange) lays first stone for the construction of CEA- CCBAD new building

The African Center of Excellence on Climate Change, Biodiversity and Sustainable Agriculture (CEA-CCBAD) has commissioned the construction of three ultra- modern buildings which comprises of an Amphitheater, Classrooms, laboratories, offices, meeting Rooms, Library and Restaurant. This is to strengthen its teaching and research facilities. The Centre also plans to rehabilitate an existing laboratory and 48 rooms to accommodate foreign students. The ceremony was led by the Minister of Higher Education and Scientific Research and the Vice-Chancellor of Felix Houphouet-Boigny University (UFHB), La Cote d'Ivoire.

Since the commencement of the ACE project in Ivory Coast in 2016, the center has admitted over 200 students into its PhD and Masters Programmes and has also published more than 80 articles. Sixty percent (60%) of these were produced in collaboration with foreign authors.

### ACE Supervision Mission

In line with the ACE project's monitoring and evaluation strategy, Supervision Teams consisting of subject matter experts in the thematic disciplines of Agriculture, Health and Science, Technology, Engineering and Mathematics would visit some Centres of Excellence from March 12 to April 17 2018.

#### FIFTH SUPERVISION MISSION TIMETABLE

REF.	PROJECT TITLE	LEAD INSTITUTION &	SUPERVISION TEAM	TIME		
NO.		COUNTRY	MEMBERS			
	AGRICULTURE					
1.	CEFTER Food Technology and Research	Benue State University, Nigeria - BSU	<ol> <li>Carl Larsen</li> <li>Raphael Wahome</li> <li>Abubakar Akpa</li> <li>Aisha Mohammed</li> <li>Jonathan Mba</li> </ol>	2 – 3 APRIL 2018		
2.	Centre for Dryland Agriculture (CDA)	Bayero University, Kano, Nigeria	<ol> <li>Carl Larsen</li> <li>Raphael Wahome</li> <li>Abubakar Akpa</li> <li>Aisha Mohammed</li> <li>Jonathan Mba</li> </ol>	5 – 6 APRIL 2018		
3.	CERSA Poultry sciences	University of Lome, Togo UL	Carl Larsen     Raphael Wahome     Pamela Mulet	16 – 17 APRIL 2018		
STEM						
1.	Pan African Materials Institute (PAMI)	African University of Science and Technology (AUST), Abuja, Nigeria	<ol> <li>Mamadou Diallo</li> <li>Xavier Michel</li> <li>Godwin Ekhaguere</li> <li>Aisha Mohammed</li> <li>Jonathan Mba</li> </ol>	19 – 20 MARCH 2018		
2.	Regional Water and Environmental Sanitation Centre Kumasi (RWESCK)	Kwame Nkrumah University of Science and Technology (KNUST), Ghana	Mamadou Diallo     Xavier Michel     Eunice Ackwerh     Gabby Hansen	22 – 23 MARCH 2018		
3.	Ecole Nationale Superieure de Statistique et d'economie Appliquee (ENSEA)	Ecole Nationale Superieure de Statistique et d'economie Appliquee (ENSEA), Cote d'ivoire	Patrick Ramanantoanina     Mamadou Diallo     Nkem Khumbah     Jonathan Mba	10 – 11 APRIL 2018		
4.	Centre d'Excellence Africain Mines et Environnement Minier (CEA-MEM)	Institut National Polytechnique Felix Houphouët-Boigny - Cote d'ivoire	Patrick Ramanantoanina     Mamadou Diallo     Nkem Khumbah     Jonathan Mba	13 – 14 APRIL 2018		
5.	CEA-MITIC ACE in Mathematics, Informatics, and ICT	University of Gaston Berger (UGB), Senegal	<ol> <li>1. 1. Moustapha Lo</li> <li>2. Wedoud Kamil</li> <li>3. Mamadou Diallo</li> <li>4. Nkem Khumbah</li> <li>5. Jonathan Mba</li> </ol>	16 – 17 APRIL 2018		

	HEALTH CONTROL OF THE					
1.	Phytomedicine Research and Development (ACEPRD)	University of Jos, Nigeria	Aisha Mohammed     Michelle Niescierenko     Tenagne Haile-Mariam     Hadiza Galadanci     Jonathan Mba	12 – 13 MARCH 2018		
2.	Centre for Excellence in Reproductive Health and Innovation (CERHI)	University of Benin, Nigeria	Aisha Mohammed     Michelle Niescierenko     Tenagne Haile-Mariam     Hadiza Galadanci     Jonathan Mba	15 – 16 MARCH 2018		
3.	ACE in Maternal and Child Health (CEA- SAMEF)	Université Cheikh Anta Diop, Sénégal	Moustapha Lo     Wedoud Kamil     Tewfik Nawar     Sylvain Meuris     Adeline Addy	APRIL (to be confirmed)		

### ACE III for Development Impact



Stakeholders meet to discuss sustainability of the Project

Following the success of the first phase of the Africa Higher Education Centres of Excellence (ACE) project, The World Bank in conjunction with the RFU and African Higher Education Centres of Excellence (ACE 1) recognized the need to escalate the success and expand the benefits accrued to the Centres and their Countries. This decision gave birth to ACE III which was announced at the ACE I & ACE II Joint Workshop held in November, 2017 at La Palm Royal Beach Hotel, Accra, Ghana.

ACE III will focus on increasing the quality and relevance of post-graduate education in selected universities through regional specialization, applied research, upfront University-Industry linkage and better Regional and International coordination. ACE III is not an absolute replacement for ACE I, but rather seeks to build on the success achieved and expand the reach of the benefits from ACE I. It further aims at upscaling performing Centers hence, only performing ACE I Centers will be upgraded to ACE III. The Regional Facilitation Unit for the ACE III is the Economic Community of West African States (ECOWAS) Secretariat. Regional services such as Monitoring and Evaluation, Verification and Logistics will be provided by the Association of African Universities (AAU) on consultancy basis.

Centers will be selected as part of ACE III based on prior performance in ACE I. The selection criteria will place emphasis on productivity of Centers in meeting targets and also making regional impacts, strengthening institutional support, strengthening industry/sector engagement and commitment.

Potential ACE III Centres should have an Advisory Board, applicable measures to initiate institutional and governmental partnerships, encourage increase in female enrollment and also plan for sustainability of the Centres after the project comes to an end, thus, alternative sources of revenue. Again, Centers involved in ACE III should have a foundational structure and a regional network with regards to faculty training and curriculum development.

ACE III looks forward to creating strong links with existing ACEs and Upgrading existing academic programme among others.

It is expected to kick start in March. The Evaluation and Selection Process will consist of a Desk Review followed by a Panel discussion and later, Site Visit if a submitted proposal meets the required criteria. The purport of this process is to ensure the selection procedure meets International standards.

Proposals are due to be submitted on June 2018, whilst the Desk and Panel Review as well as the Site Visits will be held in late June and July/August 2018 respectively.

#### **Opportunities**

- Call for PhD Applications at the Africa Center of Excellence in Internet of Things (ACEIoT), University of Rwanda. Applications now open for PhD Studies-Deadline extended up to March 16, 2018
- CERSA in collaboration with the German Academic Exchange Service call for applications for Masters and PhD scholarships. Deadline March 31, 2018. Click to apply.

http://www.cersa-togo.org/actualite/appel-a-candidatures-pour-des-bourses-d-a-tudes-2018-au-centre-d-excellence-ra-gional-surles-sciences-aviaires-cersa-au-togo--56.html

• Call for Masters Research Program in Avian Science. Click to apply. http://www.cersa-togo.org/offres/programme-de-recherche-master-en-sciences-aviaires-8.html

Call for participants in SIMPA- BENIN School 2018.. Register here http://www.imsp-benin.com/ceasma/index.php?action=depot-des-dossiers-cimpa-2018