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MESSAGE FROM THE EDITORIAL DESK

In the second quarter of 2018, The Brew-Hammond Energy Centre (TBHEC) carried out series of activities.

In being true to the objective of this newsletter, this issue aims at updating our cherished fellows and followers of TBHEC on the recent happenings at the Centre. We hope you enjoy this issue too.

From the editorial desk.

HIGH PROFILE VISIT FROM A GERMAN DELEGATION



The cooperation between the German State of North Rhine-Westphalia (NRW) and Ghana has grown significantly cordial. Through this cooperation, The Brew-Hammond Energy Centre, KNUST is being supported for it to become a Centre of competence for climate and resource protection and to provide state-of-the-art research, advisory services to public and private bodies, as well as demonstrate environmental technologies. Visible projects from this support are the Smart Energy Management Systems, Solar Lab and the Solar Training Centre, the Biogas and Biomass Laboratories.

In March this year, a high profile delegation visited the Centre. The delegation was led by a former State Minister of the German State of North-Rhine Westphalia Mrs Bärbel Höhn and the Programme Manager for Renewable Energy / Energising Development at GIZ Ghana, Mr. Steffen Behrle. Mrs Höhn who was a minister for environment, agriculture and consumer

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rights and also a former member of the German Bundestag (2005-2017) is now the Special Representative for Energy in Africa of the German Federal Ministry for Economic Cooperation and Development (BMZ). They were warmly received by the acting Provost; Prof K. O. Boateng and the acting director of The Brew-Hammond Energy Centre; Dr. Gabriel Takyi.

Upon their arrival, a breakfast meeting was held where discussions as to how the collaboration between the Centre and the NRW State can contribute to Ghana's commitment towards renewable energy as ascribed in the 2018 policy document on Energy. The policy goal seeks to increase the contribution of renewable energy in the overall energy mix. Moreover, the policy document seeks to ensure efficient production and utilization of biomass energy resource with a peripheral view of reducing the causes and effects of climate change. This is in synchrony with the objective of the collaboration between the two parties.

After the breakfast meeting, the delegation was given a tour of the various demonstration installations on campus that were funded by the German state of NRW through GIZ.

The delegation was generally satisfied by the fact that the project equipment were properly maintained and serving the purpose for which they were installed.

2018 SHORT COURSES

The week-long programme organized biannually in January and May is one of the many short course programmes ran by the Centre. For nine years, The Brew-Hammond Energy Centre has offered courses in the following areas; Solar Photovoltaic, Financial Modelling & Analysis of Renewable Energy Projects and Biogas Technology.

The first session for the year 2018 was held from the 8th to the 12th of January which saw a turnout of 20 participants. Only one course was ran for this session which was Solar Photovoltaic Technology. The Solar PV short courses programme aims at training and equipping technicians, engineers and students with the requisite basic skills in design, installation and maintenance of solar home systems. Participants had practical sessions geared towards providing a handson appreciation of the theory lessons.

The second session of the week-long short course was organized from 21st to 25th May



2018. In this edition, Financial Modelling Analysis of renewable energy projects was facilitated concurrently with the solar PV training. The former is targeted at students and Professionals in the renewable energy industry to equip them with knowledge that will influence their economic decisions in renewable energy projects. For this second session, a total of forty (40) participants from various academic and professional backgrounds attended both training programmes.

FELLOW PROFILE: PROF. J. P. ABEEKU BREW-HAMMOND



e was Prof. J.P. Abeeku Brew-Hammond, but most people knew him simply as Prof. Abeeku Prof. Abeeku Brew-Hammond, of blessed memory, was the founding Director of The Brew-Hammond Energy Centre. He spearheaded the establishment of the Centre, which was already envisioned in the newly implemented collegiate system of the university at the time. Even though there were a number of challenges, he and his colleagues, with the support of the then Provost (Prof. F. Y. Momade) successfully justified the university's need to establish a multi-disciplinary

Centre dedicated to energy research. He served as Director until his demise in March 2013.

Under his leadership, the reputation of the Centre rose rapidly and attracted national and international support. His vast international network was a great asset. Thanks to his efforts at The Energy Centre, the College of Engineering can boast of almost 75 kW of solar PV installations. Of which 44 kW are installed on KNUST campus and saving the university over GH¢50,000 in electricity bills annually. Another 30 kW is installed at various locations in Northern Ghana as part of a research project.

Prof. Brew-Hammond was very about passionate building the capacity of the youth in the field of energy and so he created numerous opportunities of learning and grooming for the young ones. Although a good academic background is important to run a research Centre such as TBHEC, what made the late Prof. Brew-Hammond excel in his duties as the Director of TBHEC were not his academic achievements per se, but rather his commitment to vision and duty, honesty, tenacity and the many good traits he had as a leader.

Prof. Brew-Hammond had a BSc. Mechanical Engineering (1978), MEng Mechanical Engineering (1984) and DPhil Science and Technology Policy Studies (1998) respectively

from Kwame Nkrumah University of Science and Technology (KNUST), Kumasi, Ghana, McGill University, Montreal, Canada and University of Sussex, Brighton, UK. Prof. started as an Assistant Lecturer at KNUST in 1980 and rose through the ranks, becoming a full Professor by the time of his demise.

Prof. Brew-Hammond served in different leadership positions within the university, in the country and internationally. He served as Head of the Department, Dean of Faculty of Mechanical Engineering at KNUST and at the time of his unfortunate demise he was the Chairman of the Energy Commission of Ghana and a member of the UN Secretary-General's High-Level group on the Sustainable Energy for All initiative. He was one of the authors recognized for their contributions to the 2007 Nobel Peace Prize awarded to the Intergovernmental Panel on Climate Change (IPCC) and was the first Technical Secretariat Manager for the Global Village Energy Partnership (GVEP). He also served as a coordinating lead author for the Energy Access Chapter of the seminal publication "Global Energy Assessment: Toward a Sustainable Future" published by Cambridge University Press (CUP) and the International Institute for Applied Systems Analysis (IIASA). He founded The Kumasi Institute of Technology, Energy and Environment (KITE) and served as the first Director.

Prof. Brew-Hammond will forever be missed and remembered for all his positive contributions, not just to TBHEC but to Ghana and to the global community. In recognition of this stellar contribution to society, the Council of KNUST in October 2016 renamed the Centre as The Brew-Hammond Energy Centre. This honour indeed extends to all who laboured with him to build the Centre. Fellows are truly grateful to Prof. S. I. K. Ampadu (The immediate past Provost), who initiated this process and to Prof. Mark Adom-Asamoah (current Provost) who oversaw its conclusion.

PROJECT REVIEW: ECOSYSTEM-BASED ADAPTATION FOR FOOD SECURITY ASSEMBLY (EBAFOSA)



partnership with TBHEC-KNUST through a Small Scale Funding Agreement (SSFA) is implementing an Ecosystem Based Adaptation for Food Security Assembly (EBAFOSA) Project. The objective of the Project is to scale up Ecosystem Based Adaptation (EBA) by positioning it as among a menu of solutions, together with clean energy and ICT enabled linkages to market and supply chains among other market interventions. This is to maximise productivity of Africa's food systems for income generation and food security simultaneously with mitigating emissions and enhancing ecosystem development.

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Through the SSFA, TBHEC has supported the establishment of EBAFOSA national branches in selected African countries as well as providing support to some countries to enhance their capacity to drive agro-industrialisation and low emissions development. These national branches are helping to catalyze the establishment of mutual partnerships among complementary state and non-state actors to bridge implementation gaps in establishing Ecosystem Based Adaptation-driven clean energypowered agro-value addition enterprises. The target is to introduce EBA to cassava, sorghum and other food crops (e.g. vegetables) farmers and processors and link them to renewable energy-based value addition strategies (e.g. solar drying, packaging) to ensure Africa's food systems are optimized and climate-proofed.

GREEN ENTREPRENEURSHIP AWARDS



The Brew-Hammond Energy Centre in collaboration with the state of North Rhine-Westphalia (NRW), Germany has set up a competition dubbed The Green Entrepreneurship Awards. The theme for the awards was "Turning environmental challenges into business opportunity". The Award is a partnership project involving KNUST, Bonn-Rhein-Sieg University of Applied Sciences (BRSU) in Germany and the

University of Cape Coast (UCC) with sponsorship from the German North Rhine Westphalia State and GIZ. This competition, which commenced in March 2017, was aimed at promoting sustainable enterprise development among students and young graduates in order to motivate them to come up with brilliant ideas to solve environmental problems and create jobs for themselves and other people. At the start of the programme, about 85 teams were enlisted with each team comprising not more than 5 members.

After initial vetting, five teams were shortlisted to proceed to the next stage of the competition where teams were expected to conduct feasibility studies and develop prototypes of their business ideas.

After a strict judging process, two winners were selected and each awarded a grant of 5000 euros as seed funding to help them develop their business plan. In addition to the financial support, the teams



Prof. Mark Adom-Asamoah(Provost, CoE) presentsing the 2018 Green Entrepreneurship award to Nonafate Company Itd.

would also receive technical and management support from the KNUST

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Centre for Business Development, the Brew-Hammond Energy Centre and other units within the University. The package also includes assistance from industry experts and practitioners to assist the young entrepreneurs. An award ceremony at the College of Engineering of KNUST was organised on 5th July 2018.

The first award went to EvaTECH Ecooler Company Limited which is in the business of making fruits and vegetable storage easier and less expensive for farmers and retailers in order to reduce post-harvest losses.

The second award went to Nonafate Company Limited who are developing

modern technologies to produce efficient and environmentally friendly irrigation pumps to promote commercial agriculture in Ghana.

Dignitaries present included Professor Imoro Braimah (Provost, CoHSS-KNUST) who was the chairman of the award ceremony and a representative for the Vice Chancellor of the University, the Provost of the College of Engineering, Professor Mark Adom-Asamoah, The Director of the Brew-Hammond Energy Centre, Dr. Emmanuel W. Ramde, Representatives from University of Cape Coast, Fellows of the Brew-Hammond Energy Centre, Technical Advisors on the project, Professors, Deans, Directors, Heads of Departments and other personalities from KNUST.

The technical advisors on the project are Mr Samuel Akomea, Ing. Joseph Oppong Akowuah, Dr. Ahmed Agyapong, Mr. Kweku Appiah-Badu, Dr. Samuel Dodoo and Mr. Phanuel Wunu (UCC). The coordinator of the project is the Director of the Brew-Hammond Energy Centre, Dr. Emmanuel W. Ramde assisted by Ms. Ophelia Dede Narh.





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