

## THE VICE-CHANCELLOR OF CAPE COAST TECHNICAL UNIVERSITY PAYS A COURTESY CALL ON THE CENTRAL REGIONAL MINISTER



*From left, Registrar (Dr. Francis N. Akrono), Vice-Chancellor, Hon. Central Regional Minister and Chief Director (Regional Coordinating Council)*

**T**he Vice-Chancellor, Rt. Rev. Ing. Prof. Joshua Danso Owusu-Sekyere and the Registrar, Dr. Francis Narh Akrono on behalf of the Management of Cape Coast Technical University paid a courtesy call on the Central Regional Minister on



*Vice-Chancellor and Registrar interacting with the Hon. Central Regional Minister*

Wednesday, March 31, 2021. Prof. Owusu-Sekyere congratulated the newly appointed Central Regional Minister and pledged the support of Management of the University to her administration. He wished her well and hoped that her tenure of office would bring good fortunes and a turnaround in the Region. The Central Regional Minister,

Honorable Mrs. Justina Marygold Assan has expressed her unflinching support to the Management of the Cape Coast Technical University. She added that the University has a pivotal role to play in the agenda of job creation of the President, His Excellency Nana Addo-Dankwa Akuffo- Addo through training and acquisition of entrepreneurial skills. Mrs. Justina M. Assan indicated that the University is a key partner in the execution of the regional development plan. According to her, the visit was timely because the support of the Management of CCTU was needed for the transformation of



*Vice-Chancellor, signing the visitor's book*

the Region and the Country as a whole.

The Vice-Chancellor, Prof. Owusu-Sekyere thanked the Regional Minister for her promise of support and believed there would be more of such meetings. Present also at the meeting was the Chief Director at the Regional



*Registrar, signing the visitor's book*

Coordinating Council, Mr. Kingsley Agyei Boahene, Mr. Richmond Yeboah, Head of Eagle FM/ Alumni Section of CCTU and Mr. Felix Opare-Baako, The Officer in Charge of Public Relations, Protocol and Events Management of CCTU.

*Source: Directorate of Public Affairs*



# CAPE COAST TECHNICAL UNIVERSITY SIGNS MOU WITH PIONEER BAMBOO PROCESSING COMPANY LTD.



Cape Coast Technical University has signed a Memorandum of Understanding with Pioneer Bamboo Processing Company located at Assin Fosu.

Commenting on the MOU, the Vice-Chancellor, Rt. Rev. Ing. Prof. J. D. Owusu-Sekyere said he was grateful to accept the readiness of Pioneer Bamboo Processing Company Ltd. (PBCL) to collaborate with the University for academic, research and entrepreneurial purposes.

The Managing Director of PBCL, Lawyer G. A. Agbolosoo-Mensah disclosed that the company had

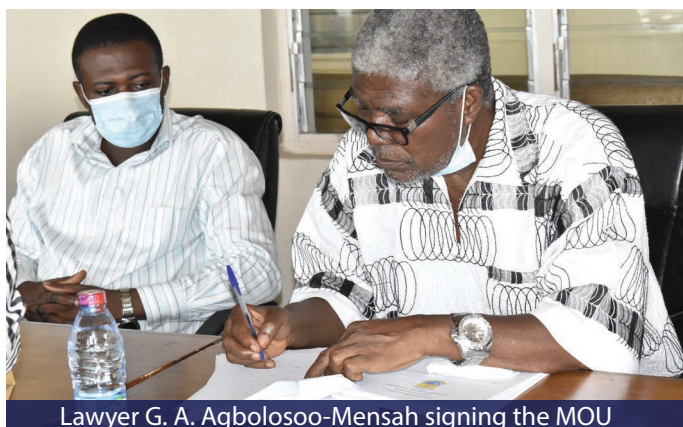
stalled for some time due to a couple of challenges and he was happy that CCTU had expressed interest in managing it. He stated that he believed that CCTU was capable of reviving the company and he looked forward to seeing the Company develop into a Bamboo Industry in the country.



Prof. J. D. Owusu-Sekyere (Vice-Chancellor) appending signature to the MOU



Dr. Francis Narh Akrono (Registrar - CCTU) also signing to the MOU



Lawyer G. A. Agbolosoo-Mensah signing the MOU



**CAPE COAST  
TECHNICAL UNIVERSITY**

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## CCTU SIGNS MOU WITH ACE-PLUS



*Group Photograph of Management of CCTU and ACE-PLUS*

CCTU and ACE-PLUS have signed a Memorandum of Understanding to collaborate, exchange ideas and work together in the development of a Home Improvement MINI-MALL, Up-Scale Student Housing Units and other business and student-centered initiatives.

Present at the meeting were: the Vice-Chancellor of CCTU, Rt. Rev. Prof. Ing. J.D. Owusu-Sekyere; Nana Obokese Ampah I, President of ACE-PLUS; Dr. David Whitaker (Esq), Managing Partner of ACE-PLUS Board and Mr. Richmond Yeboah, Alumni/Eagle FM and John Benson Assan (CCTU Lawyer).



*Prof. J. D. Owusu-Sekyere (Vice-Chancellor) signing the MOU*

## CCTU HOLDS FIRST VIRTUAL CONGREGATION CEREMONY



*LUCKY AFI DUMENYA (OVERALL BEST GRADUATING STUDENT)*

Cape Coast Technical University on Saturday, March 27, 2021 held its maiden Virtual Congregation Ceremony. The total number of graduands was 1140. In his opening statement, the Registrar (Dr. Francis Narh Akrono) stated that the virtual congregation was necessitated by the current safety protocols indicated by the government of Ghana for meetings involving large numbers due to the global pandemic, COVID-19.

In all, only the first class graduands were allowed at the ceremonial grounds. The programme was streamed live on Facebook, Zoom and on campus

Radio Station (Eagle FM) for the participation of all other graduands. The Registrar affirmed that the congregation ceremony had to be redesigned to safeguard the health of all stakeholders.

The Overall Best Graduating Student with a CGPA of 4.80 was in the person of Lucky Afi Dumenya from the Department of Tourism and the School of Applied Arts. Management congratulated her for such an enviable feat, encouraged her to aspire for the best in life and urged her to always remember her alma mater, CCTU.

# DEPARTMENT OF MECHANICAL ENGINEERING HELD ITS 1ST DEPARTMENTAL RESEARCH SEMINAR PRESENTATION



Group Photograph of the Participants

The Department of Mechanical Engineering has organised its 1st Departmental Research Seminar on February 26, 2021, at the CCTU Library Conference Room. Dr Kwame Anane-Fenin, the Head of Department, gave the welcome address. He indicated that the department was positioning itself to be a leader in research output in the university. He stated that the department had constituted a research team to undertake a minimum of four (4)



A resource person making his presentation

research studies every year for publications. He was optimistic that the seminar would serve as a catalyst that would ignite the passion for research within the department in particular and the School in general.

The Vice-Chancellor, Rt. Rev. Ing. Prof. Joshua Danso Owusu Sekyere chaired the meeting and delivered the opening remarks on the seminar themed: "The importance of building a research culture in Technical Universities". He appealed to other departments to emulate the initiative spearheaded by the Mechanical Engineering department which seeks to highlight the research of faculty members. The Vice-Chancellor indicated that the only way for the university to gain

international visibility was via high-quality research that results in publications within high impact journals. He further encouraged members of staff to apply for research grants as a means of building a sustainable research culture.

The programme was well attended. Present were the Pro Vice-Chancellor, Deans, Directors, HoD's and members of staff from various departments.



Presentation seminar

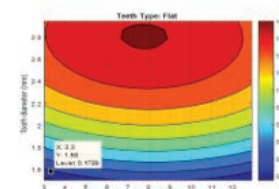
The Research Presentations were as follows:

<p>"Dispersion Quantification of Nanoparticles within Nanocomposites" -Dr Kwame Anane-Fenin</p>	<p>Proof of Concept</p> <p><math>Gap_n(k) = E_n[\log(W_k)] - \log(W_k)</math></p> <p>The Gap method proposed by Tibshirani et al. [2001] estimates the number of clusters within a data set</p> <p>MECHANICAL ENGINEERING DEPARTMENT</p>
<p>"Assessing and Evaluation of feed mixer in Ashanti and Brong Ahafo region" -Mr Ishmael Nartey Amanor</p>	<p>KEY RESULTS/FINDINGS</p> <p>Figure 5: Geospatial map of poultry farms in Ashanti Region Amanor et al.</p> <p>Figure 6: Geospatial map of poultry farms in Brong Ahafo Region MECHANICAL ENGINEERING DEPARTMENT</p>



"Parameter Optimisation of Punched Grating Surface of Rotary Drums for Producing Agbelima (Cassava Dough)"  
**- Ms Nana Yaa Serwaah Sarpong.**

Obj. 3;



Results and Discussion 2/2

MECHANICAL ENGINEERING DEPARTMENT

"Perception and Behavioural risk factors of safety protocol in Cape coast Technical University"  
**-Dr Benjamin Chris Ampimah**

THE EFFECT OF THE BEHAVIOR RISK FACTORSON PERCEPTION FACTOR  
**RESULTS - CONT**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	F	Sig.
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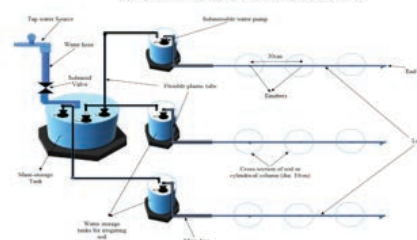
PerceptionModel	0.674	0.455	0.44	0.748	30.583	0.000
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	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error				Lower Bound	Upper Bound
(Constant)	0.000	0.038		0.000	1.000	-0.076	0.076
Non-Social Distance Measures	0.182	0.095	0.182	2.773	0.006	0.053	0.311
Social Distance Measures	0.211	0.053	0.211	4.002	0.000	0.108	0.315
Sex	0.004	0.048	0.004	1.311	0.184	-0.075	0.100
Age	0.001	0.047	0.001	0.258	0.796	-0.093	0.096
Religious Affiliation	-0.002	0.045	-0.002	-2.072	0.039	-0.180	-0.005

MECHANICAL ENGINEERING DEPARTMENT

"The Fabrication and Laboratory Testing Of A Micro-Controller Based Automated Drip Irrigation System: A Potential Irrigation Scheduling Tool For Botswana"  
**-Mr Wisdom Eyam Kwame Agbesi**

**METHOD - Experimental design layout**



"Traditional Practices in Automatic Transmission drives: Maintenance in Ghana"  
**-Mr George Boafo**

Table 4 Reasons for Choosing a Type of Transmission

Reason for Purchasing Car	Automatic		Manual	
	n	%	n	%
Driving Comfort	378	92.4	31	7.6
Ease of Maintenance	0	0.0	49	100
Cost of Vehicle	12	100	0	0.0
Brand of Car	26	44.8	32	55.2
Other	8	100	0	0.0

MECHANICAL ENGINEERING DEPARTMENT

"Optimisation of spark ignition engine using LPG/CNG as Fuel"  
**-Mr Benjamin Essuman**

**Experimental Setup**



"Offsetting greenhouse gas emissions in industry through the production of bioenergy from industrial effluent"  
**-Ing. Rejoice Ntiriwaa Ossei-Bremang**

**Experimental Setup**



# CCTU TO RUN BACHELOR OF TECHNOLOGY PROGRAMME IN GREEN BUILDING TECHNOLOGY



*Vice-Chancellor delivering his address at the Conference*

Ghanaians have been urged to patronise the use of energy efficiency building as the only way to reduce the energy challenges that the country is facing.

The Vice-Chancellor of Cape Coast Technical University, Rt. Rev. Ing Prof. Joshua Danso Owusu-Sekyere made this known at a three day Green Building Research Conference on the theme, "The Role of Built Environment Professionals in Prioritizing Net Zero Buildings".

He noted that in Ghana, increase in energy demand had outstripped increase in energy pro-



duction and supply in the last decade. This had led to the infamous "dumsor" that had affected the industrialization and developmental agenda of the nation. Prof. Owusu-Sekyere revealed that over 70% of Ghana's energy supply was from thermal-based power plants, whose fuel con-

tributes greatly to global warming and climate change. He reiterated that there was a need to explore the use of alternative, sustainable and renewable energy resources to augment and maybe replace the current energy generation sources in the country.

He said the Government of Ghana had identified renewable energy as a viable option that could contribute to the overall energy supply mix and minimise the adverse effects of energy production on the environment. Indeed, renewable energy programmes and projects implemented in recent years had demonstrated that renewable energy interventions have enormous potential to reduce poverty and improve the socio-economic development of the country, particularly, in rural communities.

He acknowledged that Cape Coast Technical University, had chosen Renewable Energy Technology as its niche area, and in line with this, the University is positioning itself as a centre of excellence in training, research and



innovation in Renewable Energy Technologies. Cape Coast Technical University, well resourced as the hub for Renewable Energy studies and researches, could be a resource and knowledge link between players within the Renewable Energy domain.

Zero energy buildings combine energy efficiency and renewable energy generation to consume only as much energy as could be produced onsite through renewable resources over a specified time period.

To achieve net zero energy buildings, the following had to be considered: (1) lighting, (2) the walls and roof, (3) glazing, (4) heating, (5) ventilation, (6) air conditioning, (7) renewables (8) soft costs, and (9) the building usage and behaviour of the occupants.

The world has witnessed profound technological break-



throughs arising from advances in scientific research. It must be stated that the advances in the developed societies were as a result of applied research leading to scientific discoveries. With effective utilisation of research outputs, many of the challenges confronting Ghana could be surmounted.

It was believed that the conference would bring to the fore solutions to some of the enormous developmental challenges confronting Ghana. It is hoped that it will highlight the importance of Green building research. It is also hoped that it will prompt stakeholders to pay more attention to Green Building research and possibly lead to the provision of research grants to researchers.



On his part, the Chairman of The Green Building Council, Foster

Osae-Akonnor noted that Green Building issues have been captured in the Ghana Building Code and had become mandatory for properties to have component of energy efficiency materials used in constructing them. He appealed to the university to invest in research so as to proffer solution.



The Immediate Past Director, Strategic Planning and Policy at the Energy Commission, Dr. Joseph Esando-Yedu, noted that the government of Ghana needs to prioritize renewable energy technologies to end the energy crises.

The Head of Building Technology Department, Surv. Dr. Emmanuel Bamfo-Agyei disclosed that the department had developed a 4 year Bachelor of Technology programme in Green Building Technology which aimed to train

students to acquire the hands-on skill needed in the green building industry.



He said to overcome the challenges faced in Ghana related to energy crises, the Green Building Technology programme could equip graduates with the requisite knowledge, skills, attitudes and ethics to enable them design, construct, manage and deliver green building projects in a safe, cost-effective, timely and sustainable way. The programme would train more skilled personnel required for achieving the objective of green building which is to ensure the sustainable and conscious use of natural resources in the Building industry in Ghana. He said Cape Coast Technical University would run an energy efficiency construction programme.

