



## 12th International Virtual Conference for African Development

UNIVERSITY OF GHANA - ACCRA

# ABSTRACT & PROCEEDINGS

**THEME:** ADDRESSING SECURITY &  
DEVELOPMENT CHALLENGES IN AFRICA

WEDNESDAY 11TH – THURSDAY 12TH  
JANUARY, 2023



# 12TH INTERNATIONAL VIRTUAL CONFERENCE FOR AFRICAN DEVELOPMENT

UNIVERSITY OF GHANA, ACCRA

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## THEME

Addressing Security & Development Challenges in Africa

**DATE:** Wednesday 11th - Thursday 12th January, 2023 | **TIME:** 9:00 am (GMT+1)

## CONFERENCE LOC

**PT. Hussein Botchway**

Center for Clinical Innovation, Strategy & Policy (CCISP)

Conference LOC: University of Ghana

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MAUTECH, Nigeria

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University of Calabar, Nigeria

**Prof. Fatile Jacob Olufemi**

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# 12TH INTERNATIONAL VIRTUAL CONFERENCE FOR AFRICAN DEVELOPMENT

UNIVERSITY OF GHANA, ACCRA

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## CONFERENCE PROGRAMME

### DAY ONE: Wednesday 11th January, 2023

Conference Briefing via Google Meet	- 9:00am - 9:30am
Online Visual Presentation via Google Meet	- 9:30am - 12:00pm
WhatsApp Video Presentations	- 3:00pm - 4:00pm

### DAY TWO: Thursday 12th January, 2023

Conference Briefing via Google Meet	- 9:00am - 9:30am
Online Visual Presentation via Google Meet	- 9:30am - 12:00pm
WhatsApp Video Presentations	- 3:00pm - 4:00pm



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Dated this day 5th November, 2019  
 University of Ghana, Accra



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# Conference Abstracts

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## Hypoglycemic Activity of Methanolic Extract of Balanite Eagyptiaca Stem Back on Alloxan Induced Diabetic Rats

<sup>1</sup>Mohammed Zanna Malilima & <sup>2</sup>Baba Kura Kashim

*Department of Biology, School Sciences*

*UICEST Bama, Borno State, Nigeria*

### Abstract

The stem back of balanite aegyptiaca (family: Balanitacrae) is prescribed traditionally as remedy for diabetes mellitus, which is a major health problem in the world, ranked seventh among the leading caused of death. This study was designed to evaluate the hypoglycemic activity of methanolic exact balanite aegyptiaca in normoglycaemic rats, glucose induced hyperglycemic rats and alloxan-induced diabetic rats. The methanolic extract at 200mg/kg body weight significantly ( $p < 0.05$ ) lowered the fasting blood glucose levels of the normoglycaemic, glucose induced and allaxan induced diabetic rats by 81%, 58% and 61% respectively. This finding suggest that methanolic extract of the stem back of the plant posses hypoglycemic activity and therefore support the traditional use of the plant for the treatment of diabetes mellitus.d

**Keywords:** *Hypoglycemic, Methanolic, Balanite Eagyptiaca Stem, Alloxan, Diabetic Rats*

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## Isolation and Identification of Pathogens Responsible for Post- Harvest Spoilage of Onions (*Allium Cepa L.*) in Some Selected Markets in Maiduguri, Borno State

<sup>1</sup>Mohammed Zanna Malilima & <sup>2</sup>Stephen Peter

Department of Biology,  
UICEST Bama, Borno State, Nigeria

### Abstract

This study aims to identify and isolate pathogens, responsible for post-harvest spoilage of onions (*Allium cepa L.*), the stated objectives: To isolate and Identify pathogens responsible for the onion spoilages, to estimate diseased incidence on spoiled onion, to characterizes effect of leaf extract on the pathogens and to determine whether environmental factor has effect on onion post-harvest handling process by farmers. Five samples were collected from three different markets selected for this study, Maiduguri Metropolitan Council, Bama Emirate Council and Biu Emirate Council in Borno State. The result indicates *Penicillium digitatum*, *Fusarium oxysporum*, and *Rhizopus stolonifera*, *Aspergills niger*. which are mainly fungal pathogens, while *Saccaromyces cerevisiae*, *eudomonas Spp*, *Escherichia coli* which is bacterial isolate. Extract test result of four different disk against standard anti-biotic gentamycin sample. The neem extract shows total 56 mm inhibition area with averagely 28%. Bitter leaf extract also shows 54 total inhibition zone with total 27% while African mahogany shows 62mm inhibition zone with average of 31%. And Aloe vera shows 60mm total inhibition zone with average of 30%.

**Keywords:** *Isolation, Pathogens, Post- Harvest, Spoilage, Onions (Allium Cepa L.)*



## Socio-Economic Implication of Coronavirus Pandemic on Some Selected Sub – Saharan African Countries

<sup>1</sup>Clementina Kanu, <sup>2</sup>Stephen Friday Aleke, & <sup>3</sup>Roseline Oko Ali

*Department of Accountancy/ Banking and Finance  
Alex Ekwueme Federal University Ndufu-Alike, Nigeria*

### Abstract

Recent statistics from the World Health Organization (WHO) show that, there has been over 444 million confirmed cases of coronavirus infection cases, 6,011,417 deaths, and 377,150,733 recovered cases globally. Specifically in Africa, there are 874,036 confirmed cases and 18,498 deaths across the continent. This has resulted panic in the lives and businesses of people as it affects every facet of human activities. This study examined the level of implementation of five preventive measures and the socio-economic implication of Corona virus on African countries. The result reveals that only 16% of the participants strictly implemented respiratory hygiene, Hand hygiene 14%, social distancing 9%, avoiding touching of eye, nose, and mouth 11%, self-isolation 28% and obtaining of reliable information 23%, hence the consistent increase in the spread of the pandemic to the various parts of the continent. Again the study shows that the companies and business were partially affected by COVID-19 as represented by 70% responses submitted by the participants, 14% of the participants responded that companies/businesses were completely negatively affected as there is no complete closedown of businesses. The finding of the study indicates that COVID-19 impacted negatively on the health sector as acknowledged by 82% of the respondents. 80% of the participants submitted that education was negatively affected by COVID-19. A policy thrust that encourages advocacy programmes on the implementation of individual protective measures as recommended by WHO, will go a long way in correcting the negative impact of COVID-19 on the African region.

**Keywords:** *Coronavirus, Preventive measures, Socio-economic, Education, and Health sector*

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## Impact of Farm Mechanization on Rice Production in Nigeria: Implication for Food Security in 2030

<sup>1</sup>Enwa, Sarah & <sup>2</sup>Otuisi, Lewi E.

<sup>1</sup>Delta State University Abraka

<sup>2</sup>Delta State University Abraka

### Abstract

Rice is one of the most staple food in Nigeria with consumption per capita of 32kg. Despite the country's favourable rice production ecology, there is still a huge gap between domestic rice production and consumption patterns. This study used a trend analysis to check the performance of rice production. The study is aimed at assessing the effects of farm mechanization on rice production in Nigeria. The study was based on secondary data from (2010-2022) collected from the IMF World economic outlook, and the World Bank report. Time-response graph and Autoregressive Moving Average (ARMA) was used to assess the trend of rice production in Nigeria from 2010- 2022, an independent t- test was used to test the relationship between rice production in the northern and southern Nigeria. The result showed that rice production in the northern Nigeria are faced with a lot of constraints arising from low adoption to mechanized methods of rice cultivation while the rice cultivation in the south is faced with the challenge of unavailability of mechanized methods of cultivation. There is a significant difference between rice output in the Northern rice farms and southern rice farms. This study suggests that there is a need to enhance the area under cultivation, improve the irrigation system, provide timely mechanize equipment and supply of agricultural credit to farmers at flexible interest rates, change planting dates, apply recommended doses of fertilizers, and diversify crop cultivation

**Keywords:** *Production, Mechanization, Trend analysis, Food security, Nigeria*

## Equity Financing and Sustainable Growth of SMEs in F.C.T., Abuja

**Ndulue Ifeyinwa Theresa (PhD)**

*Department of Business Administration*

*University of Abuja, Nigeria*

### Abstract

Small and Medium Enterprises (SMEs), which account for 96% of businesses in Nigeria close because they lack fund (SMEDAN, 2021). This lack of fund poses severe threat to income generation, ability to create jobs, operational efficiency, growth and sustainability of SMEs. The study examined equity financing and sustainable growth of SMEs in F.C.T., Abuja. The following hypotheses were formulated: Equity Financing has no significant impact on the operational efficiency of SMEs in F.C.T., Abuja. Equity Financing has no significant impact on income generation of SMEs in F.C.T., Abuja. Equity Financing has no significant impact on job creation of SMEs in F.C.T., Abuja. The survey research design was used in the study. Data was collected from primary source with the use of questionnaire. The duration of study was between 2012 to 2021. Ordinary Least Square was adopted and findings revealed that there is a significant relationship between equity financing and sustainable growth of SMEs in F.C.T., Abuja. The Federal Government of Nigeria through the Small and Medium Enterprise Development Agency of Nigeria (SMEDAN), should make fund more accessible to SMEs so as to enable them maintain a sustainable growth and also enhance their operational efficiency.

**Keywords:** *Debt, Equity, Financing, SMEs, Sustainable Growth*

---

## Assessment of the Nexus Between Agricultural Productivity, Food Security and Poverty Reduction in Nigeria

<sup>1</sup>Musa, Nuhu, PhD, <sup>2</sup>Idakwoji, Ojochogwu Blessing &  
<sup>3</sup>Adah Obe Christopher, PhD

<sup>1&2</sup>Department of Economics, Kogi State University, Anyigba, Nigeria

<sup>3</sup>Department of Agricultural Economics & Extension, Kogi State University, Anyigba

### Abstract

The paper investigates the link between agricultural productivity, food security and poverty reduction in Nigeria. Food production index (FPI) used as indicator for food security was regressed on per-capita income (PCI), agricultural output (AGO), population growth rate (PGR), government expenditure on agriculture (GE) and terrorism index (TER). The analytical technique of Autoregressive Distributed Lag (ARDL) and Granger causality were used based on annual data from 1990- 2021. The ARDL result reveals a positive correlation between government agricultural expenditure and food security, implying that increased government spending on agriculture is capable of boosting food production in Nigeria. Furthermore, result indicates that population growth rate and terrorism index had strong negative relationship with food security. Evidence from granger causality test indicates uni-directional causation emanating from PCI to FPI and from GE to FPI. The paper recommends that investment in agricultural sector is crucial in enhancing agricultural productivity and achieving food security in Nigeria.

**Keywords:** *Agricultural Productivity, Food Security, Poverty, ARDL, Granger - Causality*

## Analysis of Trust-Building Strategies Used by Herbal Medical Advertisers in the Volta Region of Ghana

**Klinogo G. Ransford**

*Department of French, Faculty of Arts,  
College of Arts and Humanities, University of Cape Coast*

### Abstract

Research has shown that currently, Traditional Healthcare delivery systems are being patronized more than their orthodox counterpart in Africa (Olujoba, Odeleye & Ogunyemi, 2005; Adefolaju, 2011). The high rate of patronage of the former is not only due to its effectiveness but also the linguistic behaviors employed by the advertisers of the system (Klinogo, 2015). One of the key strategies employed is a good interpersonal relationship between the audience and the advertiser (Duah, 2006). This relationship is based on mutual trust between the two parties. Trust-building has to do with establishing in the audience an undoubtable reason to keep his personal secrets with the hearer. This is an essential component in health care delivery. I propose on this note, to investigate the trust-building strategies used by the herbal medical advertisers in relating with their clients. I will collect data from selected radio stations in the Volta Region and analyze it. I will focus on the linguistic means employed by the advertisers to secure the trust of the audience. The analysis will be based on the traditional rhetoric theory of Campbell (1970) and Lauer (2004) which posits that man is subject to persuasion because he is a logical being who can reason out choices before yielding to the persuasion thereof. I hope to discover that the advertisers of herbal medicine use techniques like personal communication, use of endearment terms and the use of socio-cultural elements that are common to the advertiser and the audience to believe in the advertiser's integrity.

**Keywords:** *Trust-Building, Herbal Medical Advertisers, Volta Region*

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## Integration of Flexible Design Techniques in the Design of a Mixed-Use Building Towards Addressing Development Challenges in Abuja

<sup>1</sup>Abdulsalam M., <sup>2</sup>Eze, J. C., <sup>3</sup>Oyewo Olalekan Abdulmojeed & <sup>4</sup>Osunkunle Abdulmageed

<sup>1&2</sup>Department of Architecture, Federal University of Technology, Minna, Niger State, Nigeria

<sup>3</sup>Department of Architectural Technology, Federal Polytechnic, Offa, Kwara State, Nigeria

<sup>4</sup>Department of Architectural Technology, Federal Polytechnic, Bauchi, Bauchi State, Nigeria

### Abstract

As the needs of owners and residents change, buildings often need to be refurbished, resulting in high costs during construction, operation and maintenance with loss of functional use of the building. Most new building projects are focused on a specific program for which they are perfectly meant for. However, in this era of economically challenging times we need buildings that can easily adapt to changes in the market in order to prolong their durability. Combining living and working gives a lot of planning problems because, both the two functions compliments one another in the use of qualities spaces. In addition, the usual cycle of building and demolishing buildings is now becoming a big problem which needs strategic solutions. Hence, this study develops a systematic approach to study and analyze the properties of expected changes in the facility constructed and specific design strategies that may increase significantly the flexibility or ability to adapt to changes in the building. Therefore, three types of changes to the building are in its function, the capacity of the system, and the environment and flow of people in and around the building. These design strategies can provide specific means to change the interactions between the functions, systems and environment which will effectively and efficiently compensate for changes during refurbishment, later. It was recommended that these design strategies will increase the initial value of construction costs average less than 2%, usually reducing the original construction time.

**Keywords:** *Adaptability, Approach, Flexibility, Mixed-used and Strategies*

## Assessing the Use of Different Design Strategies for Multistorey Carparks Towards Addressing Development Challenges in Abuja Metropolis

<sup>1</sup>Tijani, I. A., <sup>2</sup>Lawal, L. A. T., <sup>3</sup>Ibrahim Mubarak Bala & <sup>4</sup>Osunkunle Abdulmageed

<sup>1&2</sup>Department of Architecture, Federal University of Technology, Minna, Niger State, Nigeria

<sup>3</sup>Department of Architecture, University of Jos, Plateau State, Nigeria

<sup>4</sup>Department of Architectural Technology, Federal Polytechnic, Bauchi, Bauchi State, Nigeria

### Abstract

The population growth of the world is continuously on the increase in which towns and cities have grown up around their public transport system. Economic activities generate traffic as a result of intensified use of urban space thereby increasing demand for parking accommodation. This has indeed created the need for the design and construction of multistorey car park to cater for the accommodation of large volume of cars within the limited spaces in city centres such as Abuja metropolis, in other to identify the most efficient parking designs for use by stakeholders. A qualitative case study method was adopted for this work. The findings of the study showed that the most used multistorey ramp designs in Abuja is the parallel, straight ramp design, due to its economical space utilization and lower cost of construction, even though the curve ramp design is known to be safer for drivers. The split-level floor system was found to be more space efficient and the most commonly constructed floor system compared to the sloping floor system. The results of the study suggest that for efficient space management a straight ramped type of multistorey car park, with parallel ramped design is therefore recommended. Although, further research will need to be conducted in other to know the most secured multistorey carpark design for driver safety.

**Keywords:** *Multistorey car park, Space utilization, Ramp design, Population growth*





