

BOOK OF ABSTRACT



School of Environmental Studies (SES)
Federal Polytechnic Nasarawa

13th NATIONAL CONFERENCE

Theme

**ENVIRONMENTAL SUSTAINABILITY &
GREEN PRACTICE IN NIGERIA:
A CALL TO ACTION**

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Please note that the abstracts are already available on our conference website, which would carry our e-ISSN while this book of abstract contains the ISSN.

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Mapping Vegetation and Land Use Types in Nasarawa LGA Using Google Earth Engine with JavaScript API

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ABSTRACT:

BACKGROUND: Nasarawa is a local government area (LGA) within Nasarawa state, north-central Nigeria characterized by solid mineral exploration and farming activities. It is known to have vast amount of water bodies that flows into the Benue River from the north. These events have great potential of altering the land use land cover (LULC) classification over time. **OBJECTIVE(S):** The objective of this paper is to reliably map vegetation or forest cover and land uses by retrieving image collection from Sentinel constellation of satellites “Sentinel-2 Multispectral Instrument (Sentinel-2 MSI)” developed by European Space Agency (ESA) and to also use cloud-based remote sensing 'Google Earth Engine (GEE)' platform with the JavaScript application programming interface (API) . **METHODOLOGY:** In this paper, vegetation and land use map of Nasarawa LGA was prepared using Sentinel-2 satellite data for both dry (November - April) and rainy (April - October) seasons of the year 2022. Images mainly from '32PLQ' and '32NLP' granule or tile identifiers that covers the study area where used. Several earth engine JavaScript API were utilized to prepare the map, chart and calculate vegetation indexes. **RESEARCH FINDINGS:** Mapping results indicates Nasarawa LGA was 67% vegetated, 23% water and 10% other land use. **CONCLUSION:** The output of this study is invaluable for decision-makers at all level of government, environmental scientists, nature-related NGOs, farmers and agriculture investors.

Keywords: sentinel satellite; google earth engine; vegetation mapping; land use mapping; JavaScript programming; application programming interface



Cost Planning Practices in the Nigerian Construction Industry

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ABSTRACT

Cost planning remains a very effective tool for controlling the cost of a project at the initial stage, its importance cannot be overemphasized in every construction activity both in developed and developing countries. However in most developing countries, the implementation of adequate cost planning practices are minimal, hence the rampant abandonment of project caused by project cost overrun that also contributes to gross underdevelopment, infrastructural deficit, and poor living standard in these countries. This study examines the cost planning practices in the Nigerian construction industry. The study uses both primary and secondary methods of data generation. Data generated from this study is further analyzed using mean item score, ranking and correlation. The respondents to the survey are experienced cost consultants across Nigeria. The findings reveal that Nigerian cost consultants' awareness of cost planning is commendable as well as application of cost planning in the industry. In addition, elemental cost planning, unit cost and comparative cost planning methods were of greater use amidst others. The study further shows a strong positive correlation between awareness and application. This study urge construction practitioners and policymakers who are seeking innovative ways to manage cost in the whole process of the planning and execution of construction projects to employ cost planning practices from the early stage of every construction project.

Keywords: Construction industry, cost consultant, cost planning, Nigeria, practices



Radiological Risk Exposure to the Residential Area Adjacent to Liquor Company in Ado-Odo Ota, Ogun State, Nigeria

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ABSTRACT

Background radiation levels and radionuclides assessment was conducted around the residential area adjacent to the Intercontinental Distillers (Liquor) Company located in Ado-Odo Ota, Ogun state using Gamma Ray Spectrometer (Super Spec RS-125 Radiation detector). This study was carried out to determine the background gamma dose rate and the associated radiological risk exposure to the public living around the study area. The activity concentrations vary from 2.47 to 25.935 Bq/Kg, 28.826 to 62.52 Bq/Kg, 4.0 to 250.4 Bq/Kg for ²³⁸U, ²³²Th, ⁴⁰K respectively. The activity concentration of the radionuclides (²³⁸U, ²³²Th, ⁴⁰K) field data was used to determine the radiological parameters. All the radionuclide activity concentrations found in the study area were below the International Reference Standard (IRS) except for Thorium, which surpassed the IRS. The estimated values ranged from 57.27 to 125.98 Bq/kg, 0.19 to 0.38, and 0.15 to 0.34 for radium equivalent, internal hazard, and external hazard respectively. The measured values of gamma dose rates ranged from 26.4 to 59.0 nGy/h. This highest value was 59nGy/h, which is higher than the 54nGy/h safe level suggested by the United Nations Scientific Effect of Atomic Radiation (UNSCEAR). The geospatial analysis of the background gamma dose rate has revealed the hot spots in the study area that could pose health risks to the residents living around the area if adequate measures are not taken.

Keywords: Gamma Ray Spectrometer, Intercontinental Distillers Company, Radioactivity, Radiological Hazard, International Reference Standard (IRS)



Physicochemical Properties And Heavy Metal Evaluation Of Soil Samples From Nasarawa Town, North Central Nigeria

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ABSTRACT

The quality of soil and its ability to perform its expected essential function has been altered due activities of human being by introduction of harmful substances from chemical and biological activities. .In this study, different soil samples were collected from different sampling point and investigated for possible impact of heavy metals. Concentrations of Pb, Cu, Zn, Cr and Mn were determined using Atomic Absorption Spectrophotometer (AAS). The analysis result indicated the presence of Cu, Cr, Mn and Zn in all the sampled sites ,while Pb was detected in only one site .Manganese has the highest value in all the samples .Physicochemical properties of the soil samples were also determined.

Keywords: Physicochemical, Heavy metals, Soil Samples, Atomic Absorption, Chemical, Biological



Green Roofs for Sustainable Housing Development: A Review of Benefits, Challenges, and Future Direction

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ABSTRACT

Green roofs, also known as vegetated roofs or living roofs, are an innovative solution for sustainable housing development that has gained significant attention in recent years. This paper presents a review of the benefits, challenges and highlights potential future directions of green roofs in sustainable housing development for research and practice. The benefits of green roofs include improving air quality, reducing urban heat island effects, storm water management, energy conservation, biodiversity conservation, noise reduction, and enhanced aesthetics. However, challenges related to cost, structural limitations, maintenance, weight, and plant selection need to be addressed to further promote their use. Specifically, the development of new technologies, modular systems, improved plant selection, and integration with other sustainable technologies are discussed as potential avenues for advancing green roof practices. By further promoting the adoption of green roofs, we can create more sustainable and resilient cities.

Keywords: Green Roofs, Sustainable Housing, Housing, Sustainability, Housing Development

Spatial Distribution of Gamma Dose Rates and Radioactivity Levels in Some Parts of Iju Community in Ado-Odo Ota, Ogun State

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ABSTRACT

This study investigates the background dose rates and radiological risk exposure to Iju community in Ado-Odo Ota. The In-Situ measurement of outdoor gamma dose rates and the activity concentrations of ⁴⁰K, ²³⁸U, ²³²Th in the study area was carried out using calibrated hand-held gamma detector, (RS-125 Gamma-Spec). The results of the gamma dose rate indicate the hotspot at location 7 with a value of 59.61 nGy/h, slightly higher than the recommended limits. The results revealed varying activities of the primordial radionuclides (⁴⁰K, ²³⁸U and ²³²Th) with average values lie within the recommended limits except for ⁴⁰K. Geologically, this higher ⁴⁰K may be attributed to regional subsidence during marine transgression. Statistically, the correlation results confirmed that the enhanced outdoor dose rates at Iju community was caused mainly by ⁴⁰K, followed by ²³⁸U, and then ²³²Th in magnitude. The estimated mean hazard indices for the for Excess Lifetime Cancer Risk in the study area were higher than the recommended permissible limits according to International Commission on Radiological Protection (ICRP). The study area requires urgent attention for adequate radiological protection.

Keywords: Radioactivity, Cancer Risk, International Commission on Radiological Protection (ICRP), Hazard Indices, Radiological Risk Exposure



Enhancing Indoor Thermal Comfort Perception In Buildings Through The Integration Of Architecture, Interior Design, And Artificial Intelligence

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ABSTRACT

This study explores how building interior thermal comfort perception could be improved by combining architecture, interior design, and artificial intelligence (AI). The concept of indoor thermal comfort, its influencing elements, and earlier studies on the effect of architecture, interior design, and artificial intelligence (AI) on indoor thermal comfort perception are all included in the literature review. The Bahrain World Trade Center, The Edge, The Crystal, and The Al Bahar Towers were all studied using the case study method. Surveys, interviews, and sensor data are among the data-gathering techniques. These are then examined using statistical analysis and machine learning algorithms. The paper gives a summary of the effects of architecture, interior design, and AI on the impression of indoor thermal comfort and its ramifications. The results guide the design of structures that prioritize improving indoor thermal comfort. The study gives a broad review of the effects of architecture, interior design, and AI on the sense of indoor thermal comfort and its ramifications. The research helps architects prioritize interior thermal comfort in buildings to enhance inhabitants' productivity, well-being, and health.

Key Words: *Thermal Comfort, Indoor Environment, Artificial Intelligence, User Perception*



A Geospatial Evaluation of Petroleum Filling Stations and Their Impact on the Environment in Nasarawa Town, Nasarawa State, Nigeria.

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ABSTRACT

BACKGROUND: In the past seven years, Nasarawa town has witness growing number of petroleum filling stations (PFS) siting. PFS should be established by following the global standard and best practices. Unfortunately, not all filling stations in Nasarawa town obey these guidelines of the regulating bodies and this study uses geospatial techniques to evaluates their spatial distribution pattern. **AIM:** Our study evaluates the geospatial distribution of Petroleum filling stations in Nasarawa town, to verify the relative distances between them as well as their closeness to the residential buildings and their impact on the environment with its associated risks. **METHODOLOGY:** The geographical location of the petroleum filling stations was observed with the Global Positioning System (GPS) to give the universal traverse coordinates (UTM) of all the petroleum filling station within Nasarawa town and a thirty-meter (30m) resolution satellite imagery to show the location of adjacent buildings within the PFS. Roads and buildings around the PFS were digitized from the satellite imagery so that buffer analysis could be carried out to determine their level of conformity. PFS attribute data were collected from the questionnaire distributed to the various PFS owners. **RESEARCH FINDINGS:** The total number of functional and non-functional PFS surveyed were 36 PFS. Based on the analysis, the result shows that 11.11% of the PFS in Nasarawa town comply with the global standard and best practices of one kilometer distance from one another, the rest 88.89% did not comply with the global standard and best practices. Also, only 30.56% comply with the 50m distance enacted by Energy Regulation Board (ERB) to any Residential building or public and private structure. The remaining 69.44% does not comply with the 50m distance by ERB. **CONCLUSION:** The result of the findings shows that it was not properly sited and hence rejected, which means the PFS was not sighted in compliance with the global standard and best practices and had significance effect on residential building, public and private structure as well as people's health and their entire environment. Finally, regulating bodies should wakeup in enforcing compliance at all level of the guidelines for the safety of the environment and its residences.

Keywords: Geospatial evaluation, GPS, PFS, environmental impact, UTM.



Green Art and Industrial Design Practice for Job Creation and Environmental Sustainability

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ABSTRACT

Over the past few years, Green Art and Industrial Design Practice have gained attention due to growing concerns over environmental challenges and sustainability. These practices have the potential to create jobs in various sectors while also promoting a more sustainable way of life. This paper explores the impact of Green Art and Industrial Design Practice on job creation and environmental sustainability. The term "Green Art" implies art that is conscious of the environment and addresses issues such as climate change, pollution, and sustainability. The arts take different forms, including ceramics, sculptures, installations, and paintings. Green Art is created using sustainable materials and the process of creating the art is also environmentally friendly. The aim of Green Art is to raise awareness about environmental issues and inspire people to take action. Industrial Design Practice, on the other hand, is the creation of products that are functional, aesthetically pleasing, and environmentally sustainable. Industrial designers use skills and knowledge to create products that meet the needs of consumers while also being environmentally conscious. The design process includes selecting sustainable materials, reducing waste, and considering the entire lifecycle of the product, from production to disposal. Green Art and Industrial Design Practice have the potential to create jobs as well as sustain the environment.

Keywords: Green Art, industrial design, practice, job creation and environmental sustainability



The Use Of Aluminium Composite Panel As A Sustainable Component In Building Construction

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ABSTRACT

Aluminium composite panel was developed in response to the need of more thermally efficient wall system in a building but, the application of Aluminium composite panel is not limited to thermal insulation. It offers wide range of flexibility in architectural design, allowing designers to have curvilinear walls with smooth surface not affected by weather, and also allow designer to have a large area of the building clad without increasing the deadload of the building. This paper deals with the application of aluminium composite panels in different type of buildings, its efficiency in different part of the building such as the internal and external cladding (building façade) or partitions, suspended ceilings, but application of ACP is not limited in architectural cladding, it is used for signage as an alternative to heavier and more expensive substrates. Furthermore, the study focused on how aluminium composite is being installed in a building and is it overall contribution to sustainable building construction. Moreover, the study explored the composition, areas of application and uses of ACP, nature and type of composites, brief history of its development, usage and popularity (acceptance), case studies of contemporary buildings constructed/finished with ACP, advantages and disadvantages of ACP and finally, a comparative analysis of ACP with other components as well as the orientation of its installation in buildings.

Keywords: *Aluminium Composite Panel, Sustainability, Thermal Comfort, Finishing, Cladding*



Sustainable Built Environment In Nigeria: Policy And Implementation Gap

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ABSTRACT

Action toward sustainable development at the world centre stage began by the United Nations Brundtland commission report and the Earth summit Rio de Janeiro, the central idea is effective and efficient application of natural resources, measuring social, economic and environmental dimensions for the development that meet the present needs without limiting the ability of the future generation to meet their needs. Thus, any development that contradict these ideas cannot be seen as sustainable development. Construction industry through non-renewable resource usage have been recognised among the major contributor to the world greenhouse gas emission, pollution and waste generation. The green building concept was introduced into construction industry to reduce the environmental impact of construction activities to the minimum level by resource efficiency, lifecycle effects, and building performance. Innovations and policies have been made by countries at national and international level seeking to steer their affairs towards sustainability. This paper examines the series of policies formulated by Nigerian Governments with the goals of attaining sustainable development, the Gaps in the implementation of those policies. The importance of Rural integration in policy making and also recommendations for the successful policy implementation for the sustainable Built environment.

KEYWORDS: Sustainable Built Environment, Policy, Implementation



An Architectural Terra Cotta and its Role in Achieving Environmental Sustainability in Nigeria's Cities

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ABSTRACT:

This study addresses the concept of sustainability in the context of buildings with a focus on analyzing the potential of an architectural terra cotta to attain environmental sustainability. In Nigeria and many cities across Sub-Saharan Africa, the move toward renewable energy is not happening fast enough to contribute meaningfully to the fight against climate change. Because, until the present time, a considerable number of people are meeting their heating, ventilation, and cooling demand into their indoor environment by burning fossil fuels which causes a large chunk of the greenhouse gases that blanket the earth and trap the sun's heat. Both climate change and air pollution are exacerbated by the burning of fossil fuels which increases Carbon dioxide (CO₂) emission, the sole cause of global warming. Although an architectural terra cotta cannot offset that entirely its excellent thermal insulation properties mean it can help mitigate the heat island effect of concentrated buildings in cities and it can lower energy consumption. This paper aims to explore the key performance benefits, and design opportunities for architectural terra cotta in buildings to aid in the attainment of environmental sustainability in Nigeria.

Key words: Architectural terra cotta, Nigeria, climate change, energy efficiency, environmental sustainability.



Knowledge and Application Of Green Building Concepts In Nigeria

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ABSTRACT

The necessity of Green Buildings has been emphasised by the construction industry's awareness of its adverse environmental impact. Being the best strategy for mitigating severe negative effects by minimizing CO² emissions, decreasing water and energy use, among other virtues. Green Building practices have been received as an innovative way to sustainable development that encapsulates economic, social and environmental components and requires societies to pursue growth paths that generate optimal flow of income built on the sustainability principles. Construction industry contributes to the national gross development value, increase in Nigerian populations and the government efforts in provision of necessary infrastructure will increase the demand for the construction activities proportionately. In contrast to their counterparts in industrialized countries, green building concepts are being adopted in developing nations like Nigeria at a relatively modest rate. This study examines the green awareness among the construction stakeholders in Nigeria. Highlights the constrain for green application, economic, social and environmental benefits of green practice. The recommendations were made for the ways to increase green awareness and encourage its practices among the construction clients in Nigeria.

KEYWORDS: Green Building, Knowledge, Application, Green, Construction Industry, Environmental Impact



Sustainable Teaching and Research: A Review of Training Needs and Demand of the Staff at the School of Environmental Studies, Federal Polytechnic Nasarawa.

Joseph Yacim¹, Halimat Omuya Abubakar², Mohammed Gambo Abdullahi³, Yusuf Umar⁴, Ajani Yusuf^{1*}, Aliyu Mohammed Bisalla⁵, Adam Maidodo⁶, Friday Onovughakpor⁷, Usman Mohammed Abba²

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ABSTRACT

BACKGROUND: *In line with the several calls for sustainable development, it is imperative that the academia also play their role through ensuring adequate research, teaching and training need. Hence, effective writing is crucial for researchers to communicate their findings, contribute to knowledge, and engage in scholarly discourse. However, there is a growing concern regarding the quality of academic writing among staff members at the School of Environmental Studies (SES), Federal Polytechnic Nasarawa (FPN). Hence, this study aims to review the training and research needs of staff members in SES, FPN with a view to enhancing their academic writing skills and contribute to sustainability.*

METHODOLOGY: *The paper uses online questionnaire hosted on Google Forms to collect 112 academic staff in the school of environmental studies. Data collected were analysed using descriptive statistics and weighted mean score.*

RESEARCH FINDINGS: *Preliminary findings indicate that while staff members at SES acknowledge the importance of academic writing, they recognize areas for improvement and express a willingness to enhance their skills. Commonly reported challenges include difficulties in structuring academic papers, adapting writing style to target audiences, and effectively incorporating citations and references. Furthermore, specific research area needs, such as scientific writing conventions, data analysis and interpretation, and literature review techniques, have been identified. The results indicated that the majority of staff members expressed a strong willingness to enhance their academic writing skills.*

CONCLUSION: *In conclusion, this study provides insights into the research area needs of staff members at SES to enhance their academic writing skills. By addressing the specific needs and challenges faced by staff members, the staff would be able to promote scholarly productivity, and contribute to the overall research output, reputation of SES as well as enhancing sustainability goals.*

KEYWORDS: Research area, Academic writing, Training Needs, Polytechnic research, Environmental studies, Academic staff, School of environmental studies



Role Of Public Libraries In Enhancing Environmental Sustainability

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ABSTRACT

Environmental degradation has become a perennial onslaught to humanity and this has also given rise to man's effort to ensure environmental sustainability. This study therefore focused on the role of public library in enhancing environmental sustainability. This paper was mainly based on the review of existing literature on the subject matter and concluded that libraries in general played important roles in creating, organizing, processing, storing, disseminating and providing access to information in order to support government's quest to provide sustainable development goals for citizens. The study recommended among others things that libraries should make effort to provide environmental sustainability information to rural dwellers who have no access to such important information, and that government should see to it that library and information centres are integrated into the scheme of activities especially as it relates to environmental sustainability

Keywords: Environmental, Sustainability, Development, Public Library. Library.



Valuation of Green Buildings in Abuja Nigeria: Key Constraints and Issues

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ABSTRACT

Green buildings have continued to gain significant ground in the real estate market in accordance with recent technological advancement and important calls for the implementation of sustainability features in buildings. Nevertheless, proper valuation of such, which falls primarily under the purview of Estate Surveyors and Valuers must be considered. However, several limitations affect how green buildings are valued Thus, using Abuja as a case study, this study examined the issues and constraints associated with the estimation of green buildings. The Practicing Estate firms in Abuja served were the target population. Questionnaires were used in collecting the data which was analyzed using descriptive statistics & Weighted Mean Scores. According to the research, the key elements to take into account when valuing green properties include location, design, size, functionality/flexibility, nature/type of materials and the property's energy status. The research also showed that valuation of green buildings in Abuja is constrained by the insufficient expertise, comparable evidences, market data, and assessment methods. The study concluded that Estate Surveyors must accomplish their obligation to provide adequate valuation of all properties, regardless of type, size, nature, and design, by adopting appropriate approaches, methods, and embarking on necessary training in order to overcome any challenges related to providing adequate valuation of green properties.

Keywords: Constraints, Estate Surveyors, Green Buildings, Green Value, Green Practice Valuation



Assesment Of The Role Of Private Sector Partnership In Solid Waste Management In Nasarawa Town, Nasarawa LGA, Nasarawa State, Nigeria.

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ABSTRACT

Urban Solid Waste management has become the greatest problem facing many urban and semi-urban areas in Nigeria of which Nasarawa town cannot be an exception. Despite the efforts by the state government to help to solve the problem its efforts are not enough and these brought about the involvement of the private sector operators to participate to help to solve the problem. The study appraised private participation in urban solid waste management in Nasarawa Town, Nasarawa LGC, Nasarawa State, Nigeria. The study area comprises of twelve (12) wards, the twelve wards was considered. Adopting the Yamene (1967) formula for sample size determination, the sample size for this study will be 381 and Bowley formula (1924) was used to determine the number of questionnaires to distribute in the twelve wards. The primary data used in this study was obtained by direct field observations, questionnaire administration, oral interviews, images and photos of the study area. The results of the major finding showed that plastics and polythene materials dominated the waste material generated with (33%) and metallic materials forms (9%) of the total waste generated. Generally waste generated was greater than waste disposed, the private sector played the greater role (57%) in the waste management than the government or public (43%), Waste disposals firms were faced with four (4) categories of challenges, first availability of dumpsite (42%), second, Inadequate of modern facilities (27%), third shortage of skilled personals (23%) and finally others (9%). The study thus recommended Public Enlightenment and Education on issues of waste management and a better public awareness strategy on the subject matter also The participation of private sector in the management of urban solid waste should be encourage so as to help in the solution of urban sold waste littering. In addition, the study recommends that regulatory agency should be more aggressive in playing its statutory roles of managing the PSP operators. Finally the Nasarawa State Ministry of Environment should review the existing laws and regulations guiding environmental sanitation and health it should also be enforced with stiffer actions in order to make them more effective.

Keywords: Solid waste, Management, Participation, Role of public sector/Private sector, Policy.



The Importance of Renewable Energy in Business Practice and Management in Nasarawa

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ABSTRACT

Adequate operation and maintenance of business today has been a major problem for most companies and organizations as a result of huge amount spent on the utilization of energy either via electric power or fossil fuels. This associated high costs has resulted into the closure and debt of many firms as some firms have resulted into lesser working hours and work from home strategies towards reducing cost. In line with foregoing, this research examines the importance of renewable energy in business practice and management with a view to proffering relevant recommendations for sustainable energy uses and office management. The target populations of the study were the business owners in Tammah area of Nasarawa State. Structured questionnaires were administered to the respondents while data retrieved were analysed using descriptive statistics and weighted mean score. The research revealed that hydro-electric power and use of generators were the major sources of energy used by most business owners in the area while other renewable energy types such as wind, solar, biomass etc were not used. The research further identified the major importance of renewable energy to include low energy cost, provision of reliable power supply as well as well improvement of business practices and management. The research further identified the high cost of installation and maintenance, ease of accessibility, level of usage and awareness amongst other factors as the constraints associated with the use of renewable energy resources. The paper concludes that renewable energy practices and sustainable practices are essential in ensuring green business practices as well as efficiency of business operations and management. Thus, the research recommended adequate awareness on the use of renewable energy as well as creation of incentives on renewable energy and formulation of favourable policies for the utilization of renewable energy.

Keywords: Renewable Energy, Business Practices, Management, Organizations, Energy Sustainability.



An Assessment of Affordable Strategy and Sustainable Mass Housing Production Using Local Building Materials in Nigeria.

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ABSTRACT

Urbanization in Nigeria has been on the increase over the years. The population of Nigeria is estimated at approximately over 200 million people with the urban population constituting about 65%. The astronomical rise in population and the size of cities constitute acute shortage of liveable dwellings. This has resulted in overcrowding, high cost of rent, increased squatter settlements, and high rate of crime, under-served infrastructural services and facilities. The various housing programmes from previous administration has not met with the housing needs of Nigerians. For Nigeria to come of this impasse, land should be readily available at an affordable rate to the people, credit facilities without cumbersome collateral and, affordable housing with serviced human settlements. This paper ex-rays locally produced building materials in Nigeria as a way of reducing the cost of production. The paper therefore examines the national housing needs, housing supply and the constraint in the supply of housing. It concludes by recommending locally sourced building materials so as to greatly reduce the cost of construction as a means to affordable strategy for the construction of affordable housing in Nigeria.

Keywords: Housing, Mass Housing, Local, Building Materials, Affordable, Sustainability,



Repurposing Discarded Objects as Artistic Means of Economic Sustainability and Greening the Environment

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ABSTRACT

Discarded objects are unwanted and seen as useless, good for nothing common materials which the initial users no longer consider of any important value to keep. They are considered as wastes or junks, thus discarded or thrown away after their original use. The indiscriminate disposal of these wastes everywhere turns them to environmental nuisance which are injurious not only to the physical environment but also to human health. However, wastes can be managed among other methods through recycling, repurposing and if well managed, man stands at an advantage economically, socially and more importantly aesthetically. This paper examines various waste materials used for artistic works especially sculptures through their typology and stylistic tendencies thereby serving as a source of inspiration for other artists to gainfully redeploy any discarded materials found around them in so far to saving the planet from environmental contamination and equally financially empowering the individual artist and also promoting the nation's economy. Methodology used include photography, studio observation and literature review. The research concludes that Tvet education ecosystem could benefit a lot if the idea in this paper is critically reviewed. It recommends also that TVET curriculum should be modified to encourage the use of discarded materials for artistic and other relevant purposes in other to promote green culture, creativity and self-sustainability.

Keywords: Aesthetics, Discarded objects, Repurposing, Waste, Environment.



Effects of Location of Federal Polytechnic on Environment in Nasarawa Town, Nasarawa, LGA, Nasarawa State, Nigeria.

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ABSTRACT

It is undisputable fact that the sitting of any activity being it economic or non-economic in any particular location must have impact on one or the other; the reason is not far-fetched, land as we know is the accommodation for all human where all activities, property development a matter of economic significance where ever people begin to show interest complete for their uses or control as a result of development in a particular neighborhood. Location of federal polytechnic in Nasarawa town has brought with it economic expansion of goods, services and accommodation which accrued great impact on the demand rent price and general value of houses giving rise to upward value of land in Nasarawa town i.e. rent price, land goods and services among others. This study intends to examine the impact of location on land on environment in Nasarawa town Nasarawa State, Nigeria. The study reviewed various concept related to the study being a conceptual paper. The major findings are slum development, increase in rent price, land, goods and services. Followed by Cultural diffusion and social vices of all kinds among others. Consequently, the study recommends community policing, effective development control among others to ameliorate the problems.

Keywords: *Environment, Development, impact assessment, development control.*



City Residents' Engagement In Outdoor Recreational Activities: A Coping Mechanism In A Post Global Pandemic World

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ABSTRACT

Recreation in the general sense entails the engagement people in leisure activities. It may be complex, comprising physical, cognitive, emotional, and social components, involve stress relief, socialization, nature appreciation, etc.) through physical interaction with the natural. Outdoor recreation activities have traditionally been avenues for promoting healthy living and lifestyle. In a bid to examine the effect of this Corona Virus on people behavior to outdoor recreational activities. Residents were randomly selected for the study based on their enthusiasm and passion for outdoor recreational activities. Google surveys were sent to 200 persons in their WhatsApp group and 68 responses were retrieved. Results show a general change in the frequency of outdoor activities due to COVID 19 cases being on the increase. Respondents made a case for incorporating environmental design into planning the city to encourage outdoor activities even during this challenging period. Policy makers were encouraged to make sure that adequate recreational facilities are created at accessible locations within cities and that laws are put in place to protect these public recreational facilities.

Key Words: Outdoor Recreation, Outdoor Recreational Behaviour, health and wellbeing, Environmental Design and aesthetics



Waste Minimization Techniques In Building Construction Projects

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ABSTRACT

Rapid development of the construction sector has resulted in the wastage of construction materials that negatively affect the environment, society, and the economy. One of the reasons is inefficient waste management knowledge and strategies practiced in construction projects. Hence, an adequate material waste management strategy is required. This study aims to valuation the factors influencing material waste in construction project sites in Nigeria, an attempt to identify the key factors can help to minimize material wastage in building construction projects. Questionnaire surveys and reviews of previous studies and related literature were employed in gathering the relevant data. 80 questionnaires administered and distributed to the various construction stakeholders received 75% return rate. These data were analyzed and ranked through mean value and Standard deviation. The results indicated that Poor design and changes during project execution was the most influential factor in waste generation in construction sites, the findings also reveal Proper site supervision and management techniques, Adequate storage of material, Staff training and awareness on waste management as the measures for waste minimisation in construction sites.

Keywords: Waste, Building, Construction, Projects, Property Development



Challenges to Sustainable urban planning and management on Abuja Immigrants

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ABSTRACT

The rapid growth of the urban population in Abuja has presented numerous challenges. The surge in rural-urban migration has overwhelmed the economic, infrastructural, and social conditions in these urban areas, resulting in a substandard quality of life for the residents. With a population exceeding 18 million, Abuja faces significant difficulties in providing essential social amenities due to inadequate planning and mismanagement of immigrants. This study aims to enhance our understanding of the existing challenges associated with Abuja's urbanization as the Federal Capital. The paper delves into an analysis of these persistent challenges, their interconnected nature, and their exacerbation of the Nigerian government's inability to address them effectively. The discussion focuses on the planning and mismanagement of immigrants, which has created gaps in the development of crucial social amenities and contributed to a decline in living standards. Moreover, the conclusion provides recommendations to address these challenges, emphasizing the need to rectify existing gaps, implement necessary measures, and untangle the complex web of issues to provide viable solutions.

Keywords: Planning, Management of immigrants, Urbanization, Urban Development.

