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Aim and Scope

The Environmental Technology and Science Journal (ETSJ) is devoted to the publication of papers which advance knowledge of practical and theoretical issues that daily plague our society. The aim of the journal is to provide an avenue for the dissemination of academic research findings from various disciplines of the environment, engineering, pure and applied sciences, arts and social science which have materials that emphasize on environmental issues.

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Correspondence

All correspondence should be addressed to The Managing Editor Environmental Technology & Science Journal SET, FUT, Minna, Nigeria Email: <u>etsj@futminna.edu.ng</u> Phone: +234 805 170 3663, +234 803 653 4507

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Managing Editor Prof R. A. Jimoh

Department of Building, Federal University of Technology, Minna, Nigeria

Editorial Secretary | Dr B. O. Ganiyu

Department of Quantity Surveying, Federal University of Technology, Minna, Nigeria +234 803 626 9235

Editorial Secretary II

Dr E. B. Ogunbode

Department of Building, Federal University of Technology, Minna, Nigeria +234 806 328 6122

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Editorial

When the December edition of ETSJ was published in 2019, nobody had an inkling that the world was going to be ravaged and thrown into calamitous confusion of unimaginable proportion by Corona Virus that was first discovered in Wuhan, China. Research has shown that the closest to the current pandemic could be comparable to the 1918 Spanish flu where millions of people were infected and fatalities were also very high. Amidst the challenges, the 46^{th} anniversary of the World Environment Day created by the United Nations for the encouragement of the world to be aware and to take action to protect the environment was marked on June 5, 2020 during the pandemic. The flip side is that in spite the devastating effect on the world economies by the pandemic, we are told that there is temporary reduction in air pollution for obvious reasons. It is not all bad news as the pandemic has made the world to know our areas of weakness in terms of our healthcare and educational systems; the way to go is Research and Development (R & D) if we are to overcome as a people. It is on this note that I welcome the research community to Volume 11, Number 1, June 2020 Edition of ETSJ for your reading pleasure. There are 15 articles in the current edition with titles from utilization of ICT in quantity surveying delivery service to strategies for attaining higher Risk Management Maturity (RMM) by highway contractors in Nigeria.

The 1st article by Saidu *et al.* adopting mixed methods methodology, assessed the effects of ICT on Quantity Surveying service delivery with a view to developing strategies for effective and safe utilisation of ICT in Quantity Surveying practice in Abuja. The study found out that the key negatives effects of ICT on QS included eye strain, neck pain and watery and dry eyes. It therefore recommended that regular teaching of ergonomics to employees and installing original and updated software are important.

Manzuma and Awesiri in the 2nd paper sought to determine the extent of reductions in energy use, costs incurred and reduction in carbon dioxide emissions achievable if some no-cost and low-cost implemented measures are in an institutional building in Nigeria. The study concluded that the energy performance building of the (65.36kWh/m²/year; 1648 hours annually) was not efficient when compared to established standard (80kWh/m²/year; 2448 reference hours).

The effects of unrefined Metakaolin (MK) as substitute to silica fume and Gear Inner Wire (GIW) as fibre on the properties of reactive powder concrete (RPC) were examined by Ibrahim in the 3rd paper. The paper concluded that 20% unrefined MK could suitably replace silica fume in RPC while 0.25% GIW could be used to enhance tensile and flexural strengths of the RPC. Therefore, Nigerian unrefined MK and GIW are suitable in RPC production.

According to Isyaku *et al.*, the construction industry is suffering from delay phenomenon that affects its performance. Hence their paper established the main causes and effects of delay on educational institutional projects in Niger State. The 4th paper therefore, recommended that the management of construction projects in educational institutions should use appropriate construction method and systematic control mechanism to enhance project delivery.

The 5th paper by Olubi and Ayoola analysed various thoughts through direct observation and cross-sectional survey of selected residential areas in Atiba Local Government Area of Oyo Town where several reasons for housing transformation were assessed. The study concluded that residential accommodations were grossly reduced, built environment negatively impacted and there was a drastic reduction in the quantity and quality of open spaces in the environment as a result of housing transformation.

Water is one of the main important abiotic components of the environment which plays a vital role in maintaining human health. Therefore, Saidu et al. assessed the quality of ground water in terms of physico-chemical parameters of the selected boreholes in some communities in Minna and its environs in the 6th paper. Due to the fact that some of the results exceeded the standards set by Nigeria Standard for Drinking Water Quality (NSDWO) and World Health Organization (WHO), the need for proper treatment of the water samples before consumption was recommended.

Ogunbode *et al.* in the 7th paper assessed the influence of plain and fibrous concrete composite on creep development through desktop research. The study concluded that it becomes imperative for all concrete scientist and researchers to give greater attention to understanding the influence of fibre on creep of concrete so that the mechanism of creep deformation in cementitious composites could be well understood.

The shortfall from revenue generated from total tax liability on rateable hereditaments has been attributed to certain determinants emanating from inefficient operation of property tax administrative system in Nigeria. This formed the basis for the 8th paper by Shittu *et al.* that assessed the determinants of property tax liability compliance in selected States in Nigeria. The study concluded that shortfall in revenue generated from property tax despite the values of hereditaments was credited to poor compliance attitudes triggered by economic, social, institutional, individual and socio-economic determinants. A complete overhauling of institutional framework for property system in Nigeria in order to address level of compliance to property tax liability was recommended.

Ijaware in the 9th paper developed a graphical user interface for automatic estimation of instrument constant using MATLAB programme and compared the linear accuracy of three total station theodolites relative to instrument constant. The paper recommended that the established baseline should be checked yearly to support better monitoring and stability of the beacons before instrument standardization.

The underlying factors influencing the adoption of technological innovations in South African facility management were examined by Adama et al. in the 10th paper. The findings showed that "effort expectancy" and "social influence" were stronger constructs in developing economies such as South Africa as against "performance expectancy" construct that appeared prominent in developed economies. It was recommended that country specific factors should be considered when adopting technology in different climes.

Aka et al. in the 11th paper argued that the construction design process is fraught waste that affects project with performance. hence their paper investigated such waste and its causes in the structural design process (SDP), through an analysis of in-depth interviews that were conducted among 25 consulting engineers in Bloemfontein, South Africa. Further research that explores mechanisms such as lean tools for waste identification and reduction in the SDP was thus recommended.

In Nigeria, power supply has become the most critical factor that has engaged policy debates, yet the problem has not been clearly addressed to ease livelihood. Ibrahim *et al.* in the 12th paper assessed the duration and solutions to the effects of poor electric power supply in Ahmadu Bello University (A. B. U) Zaria, Main Campus Staff Quarters. The paper suggested that efforts should be made by the service provider to ensure that loads are balanced among the phases thereby reducing faults in different phases.

The 13th paper by Babangida assessed the quality and adequacy of spaces and elements of design using male student's hostel mosques from Ahmadu Bello University, Zaria as case study. The paper concluded that the toilet facilities and other elements with low quality habitability index values needed immediate architectural solutions to enhance their quality adequacy while those with high quality habitability index values needed to be maintained to remain in their current quality adequacy statuses.

The 14th paper by Ibrahim *et al.* evaluated the effect of unrefined Metakaolin (MK) as substitute to silica fume and Gear Inner Wire (GIW) as fibre on the performance of reactive powder concrete (RPC) exposed to elevated temperatures (200°C-800°C). The paper concluded that in order to enhance the residual properties of this type of RPC, 10% unrefined MK and 0.25% GIW were required. Therefore, RPC of this type could be used in structures exposed to elevated temperature.

In the final paper, through the adoption of sequential mixed methods design, Bashir and Ibrahim developed strategies for attaining optimised risk management maturity (RMM) by highway contractors in Nigeria. The paper found out that the low level of implementation of the factors identified was responsible for the 'novice' level and a major barrier to attaining higher RMM. The paper therefore concluded that the barriers could be overcome by the adoption of formal risk management practices, implementation of organisation wide policy on risk management and engagement of professional staff competent in technical/management aspect of highway construction amongst others.

On a final note, any journal is as good as the Reviewers. One of our Contributors has this to say about our Reviewers and ETSJ:

"I sincerely appreciate the excellent corrections and suggestions given to me as they have enriched the quality of the manuscript. I will be most honoured if you could please extend my gratitude to them for the contribution. I also commend the ETSJ for having very professional reviewers with such academic pedigree. It gladdens my heart and reinforces my confidence in the quality of your Journal".

Based on the above, I commend our Reviewers, our Proof reader and the Typesetter for the 'thankless' jobs that you have had to oblige us at every twist and turn. Thank you!

Past and current editions of the Journal can be found at this web address: <u>http://etsj.futminna.edu.ng</u> for download at no cost.

Let us do it again, peace!

R. A. Jimoh Managing Editor

Contents

1-10	Strategies for Effective Utilisation of Information and Communication Technology in Quantity Surveying Service Delivery in Abuja Saidu I., Bode-Badaki O. Ola-Awo W. A. & Anita D. A.
11-25	Evaluation of Potential Energy Savings and Emission Reductions from a Typical Building in a Nigerian University Campus <i>B. M. Manzuma & A. G. Awesiri</i>
26-35	Suitability of Unrefined Metakaolin and Gear inner Wire for the Production of Reactive Powder Concrete <i>A.G. Ibrahim.</i>
36-48	Stakeholders Perceptions on Causes and Effects of Delay on Educational Institutional Projects in Niger State Isyaku L.M., Kasimu M. A & Nasiru A.M.
49-60	Assessment of Residential Housing Transformation in Oyo Town, Nigeria Olubi, R.A & Ayoola, H.A
61-71	Physico-Chemical Analysis of Ground Water for Domestic Use in Some Selected Communities in Minna Saidu M., Agbese E., Asogwa E. & Gbongbo J.
72-85	Influence of Plain and Fibrous Concrete Composite on Creep Development: A Review Ogunbode E.B., Oyerinde D., Ayuba P., Abdul A., Adama J.U
86-99	Analysis of the Determinants of Property Tax Liability Compliance of Rateable Hereditaments in Selected States in Nigeria Shittu, W.O., Ajayi, M.T.A., Nuhu, M.B. & Olatunji, I.A
100-107	Application for Automatic Estimation of Instrument Constant and Comparative Analyses of Linear Accuracy of Different Total Station Instruments <i>V.A. Ijaware</i>
108-118	Assessing the Underlying Factors Influencing the Adoption of Technological Innovations in South African Facility Management Adama U. J., Popoola N. I., Ogunbode E. B., Abdul A. & Sule A. I.
119-127	Evaluation of Waste and its Causes in Structural Design Process in South African Construction Industry Aka, A., Williams, F. N., Musa, A. A., Ka'ase, E. T. & Tukur, A
128-134	Evaluation of Electric Power Supply to Staff Residential Quarters in Ahmadu Bello University Main Campus, Zaria <i>M.M. Ibrahim, D. Abdulsalam & G.I. Ahmad</i>

135-149	Quality Adequacy of Architectural Spaces and Elements of Design of Worship Places: Reports from Male Students Hostel Mosques, Ahmadu Bello University, Zaria <i>H.M. Babangida</i>
150-163	Performance of Gear Inner Wire-Reinforced Reactive Powder Concrete made with Unrefined Metakaolin A.G. Ibrahim, M.M. Garba, O.G. Okoli, I.K. Zubairu, D. Dahiru, & J. Usman
164-177	Strategies for Attaining Higher Risk Management Maturity by Highway Contractors in Nigeria <i>A. M. Bashir & A. D. Ibrahim</i>