Editorial

This editorial highlight recent five researches that delves into diverse yet impactful areas, from the factors influencing cryptocurrency adoption and precision in 3D reconstruction to advancements in dental procedures, PWM inverter design, and critical success factors in highway project management. These studies offer valuable insights and practical implications, showcasing the importance of multidisciplinary approaches in addressing current technological and infrastructural challenges.

The first paper investigates the role of personality and psychological factors in the adoption of cryptocurrency. By analysing data from 452 U.S. consumers using PLS-SEM, the research reveals that consumer innovativeness positively influences the intention to use cryptocurrency, with attitude acting as a partial mediator. Additionally, the LOHAS (Lifestyles of Health and Sustainability) lifestyle moderates this relationship, highlighting the significance of consumer characteristics in the cryptocurrency market. These findings provide both theoretical and practical implications for market strategies, emphasizing the need to consider psychological and lifestyle factors in promoting cryptocurrency adoption [1].

The second paper addresses the challenge of achieving size accuracy in 3D object reconstruction, particularly for small and detailed objects. Using Meshroom for 3D photogrammetry reconstruction and various free software tools for measurement, including MeshLab, Meshmixer, Blender, and 3D Slicer, the study evaluates the performance of these tools in terms of size accuracy. Experimental results demonstrate that Meshmixer achieves high accuracy in measuring object sizes, providing a reliable and cost-effective solution for precise 3D reconstructions. This research is significant for applications requiring detailed and accurate 3D models, such as in cultural heritage preservation and medical imaging [2].

In the field of dentistry, the third paper explores the ongoing challenges faced by endodontists in performing Root Canal Treatment (RCT). Through a survey, it was observed that the lack of precision devices leads practitioners to use supplemental methods, compromising best practices and increasing the risk of operational failures. The study highlights the benefits of touch and heat devices in ensuring stability, precision, and safety during RCT. It emphasizes the need for developing and adopting advanced heating element technology to improve the effectiveness and safety of endodontic procedures, ultimately enhancing patient outcomes [3].

The fourth paper presents a detailed analysis and practical design considerations for a pulse width modulated (PWM) inverter using an insulated gate bipolar transistor (IGBT) to drive a 0.5hp induction motor. The study outlines the power supply requirements, gate drive requirements, driver protection, and dv/dt protections necessary for successful implementation. By discussing each stage of the inverter design, from the input stage to the output load section, the paper provides valuable insights for beginners and practitioners in the field of power electronics. This research simplifies the design process and highlights the importance of understanding specific model operations and peculiarities [4].

The fifth paper investigates the critical success factors (CSFs) in highway project management in Nigeria, focusing on stakeholders' perceptions. Through a survey of 200 stakeholders, including highway engineers and quantity surveyors, the study identifies key factors influencing project success. Clear project goals, experienced design teams, proper project planning, availability of resources, and timely decision-making were found to be the most significant CSFs. Despite slight variations in opinions among stakeholders, the findings underscore the need to prioritize these factors to address issues of cost and time overruns, project abandonment, and litigation in the Nigerian construction industry. The research provides valuable insights for improving project management practices and achieving successful project outcomes [5].

These studies collectively demonstrate the importance of interdisciplinary research and innovation in addressing contemporary challenges across various fields. By integrating diverse methodologies and perspectives, researchers can develop practical solutions that enhance technological advancements, improve professional practices, and contribute to the overall progress of society.

References:

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Editor-in-chief

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