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Abstract

This study introduces the Tanzania Central Processing Admission System (TCPAS) as a groundbreaking web-based solution designed to revolutionize the admission processes in Advanced Level (A-Level) private schools. The research meticulously explores the existing challenges within manual admission procedures, emphasizing inefficiencies, delays, and transparency issues in Tanzania's educational landscape. An in-depth analysis of prevalent admission methodologies reveals the urgent need for a modern, streamlined approach that prioritizes efficiency, accessibility, and fairness. TCPAS emerges as a comprehensive solution, featuring modules such as Centralized Data Handling, Applicant-School Interaction, Multiple Admissions Control, Certificate Verification, and Payment. These modules collectively address key issues, offering a transformative shift from traditional, paper-intensive methods to an eco-friendly, paperless system. TCPAS promises to enhance transparency and accessibility, providing a user-friendly interface for applicants to navigate school options, receive prompt feedback, and manage multiple admissions efficiently. The Certificate Verification and Payment Module eliminate the need for physical certificates, incorporating electronic verification and payment processes. While TCPAS represents a significant advancement, the study acknowledges the necessity for ongoing research to evaluate its long-term effectiveness, adaptability in diverse educational contexts, and potential enhancements. Future exploration into predictive technologies, such as machine learning, could further refine TCPAS, ensuring it remains a robust, adaptable, and globally applicable solution, transforming admissions processes not only in Tanzania but also in educational institutions worldwide

Keywords: Internet of Things, machine learning, Object identification