

Title: Optimization of a proposed biomass generator: Harnessing citizen waste with electric vehicle charging infrastructure

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Abstract: The recent pandemic has forced Malaysian universities to implement technological e-learning platforms to replace the physical classroom, encouraging a growing spur of online learning users. Webex by Cisco's market share is decreasing as compared to Google Meet, Zoom and Microsoft Teams. This implies a low acceptance rate of Webex due to limited personalization options, delays in responses, not user friendly and high pricing. This quantitative study explores the acceptance of Webex Classroom among campus students in public universities in Malaysia. Value-based Adoption Model (VAM) is adopted in predicting the model with perceived value and perceived fear as the mediator and the main factors of perceived technicality, perceived usefulness, enjoyment, and trust. Data is collected from 101 participants and analysed using partial least square-structural equation modelling (PLS-SEM). Seven out of eight hypotheses are supported. This study's outcome suggests that, when designing a new online learning platform, enjoyment should be prioritized together with usefulness and trust, while technical issues must be resolved to avoid fear among students. The practical significance of this study lies in the ability to assist educational authorities in comprehending the roles of each factor for future planning.

Keywords: Municipal solid waste, Waste to electricity production, Biomass, Electric vehicle charging, Resource utilization

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