

FACTORS INFLUENCING THE ADOPTION OF IOT FOR E-LEARNING AMONG UNDERGRADUATES IN STATE UNIVERSITIES IN SRI LANKA

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ABSTRACT

This study investigates the factors influencing the adoption of Internet of Things (IoT) for e-learning among undergraduates at state universities in Sri Lanka. As technology has become increasingly integrated into education, understanding the determinants of IoT adoption is crucial for enhancing e-learning experience. Despite the transformative potential of the IoT in education, its adoption in e-learning contexts remains limited, highlighting a significant research gap. The objective of this study was to identify and examine the technological, environmental, organizational, and individual factors that influence IoT adoption in e-learning. Data were collected through an explanatory research approach using a questionnaire administered to a sample of 364 undergraduate students at Rajarata University of Sri Lanka. This study illustrates how the IoT is reshaping education by creating interactive learning environments. Traditional whiteboards are being replaced by interactive screens and smart boards, promoting more hands-on learning experience. IoT-powered classroom management systems are adapting learning environments to better meet students' needs, whereas wearable devices monitor student health and provide real-time feedback. Additionally, adaptive learning platforms enhance educational outcomes by personalizing learning experiences according to each student's requirements. The findings indicate that improving organizational support and technological infrastructure within universities can significantly boost IoT adoption in e-learning. This study contributes to a deeper understanding of IoT adoption in higher education and offers valuable insights for administrators, policymakers, and educators seeking to optimize e-learning using modern technology.

Keywords: Internet of things, e-learning, higher education, technology adoption