

E-waste management in Academic Institution

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ABSTRACT

Educational institutions are increasingly reliant on technology for teaching, learning, and administration. This surge in technology use creates a growing problem: electronic waste (e-waste). E-waste, which includes discarded computers, laptops, projectors, and other devices, contains hazardous materials that can harm the environment if not disposed of responsibly. This paper examines the challenges faced by educational institutions in managing e-waste, such as the pressure to keep up with rapid technological advancements, limited resources for repairing equipment, and a lack of awareness about the proper disposal of e-waste. To address these challenges, the paper proposes a collaborative framework for sustainable e-waste management. This framework focuses on developing infrastructure for e-waste data collection, data analysis, compare the cost estimation of selling the e-waste to the retailer and the cost estimation of implementing a e-waste recycling plant in academic institute. By working together, educational institutions can significantly reduce their environmental impact and become stewards of responsible technology use in the next generation.

Key words: Educational institutions, E-waste, disposal of e-waste, data collection, Cost-benefit analysis of e-waste recycling vs. resale, Environmental impact.