ABSTRACT

Greenflation, the rising cost of transitioning to greener energy sources, poses a significant challenge to households in Indonesia. Increased energy prices directly impact household budgets and hinder efforts towards environmental sustainability [1]. *This thesis proposes an innovative solution to address greenflation by implementing Internet of Things (IoT) technology in a web-based household electricity management system* [2]. *This system collects real-time electricity consumption data through sensors, processes the data using a microcontroller, and presents information through a responsive web interface with a REST API architecture, equipped with data analysis algorithms to identify consumption patterns and provide personalized energy saving recommendations. The expected result is the creation of an effective, efficient, and easy-to-use household electrical energy monitoring and management system, which can increase users' awareness of their energy consumption, help identify savings opportunities, and provide implementation recommendations to reduce energy consumption and electricity costs, thereby not only contributing to reducing the impact of greenflation, but also supporting environmental desire efforts through the use of modern technology.*

Keywords: greenflation, Internet of Things (IoT), electricity management, Express.js, React, MongoDB, energy saving, web application