

## **ABSTRACT**

This research proposes the development of an interactive baby weighing system as an innovative approach to monitoring growth and early detection of stunting. Stunting, a global health issue, significantly impacts child development. The system to be developed is designed to provide accurate weight and height measurements, while leveraging BLE connectivity and an application to enhance regular health monitoring of children for early stunting detection.

The research encompasses the design of ergonomic and user-friendly hardware, as well as the development of software that enables real-time data collection and analysis. Interactive features include graphical displays of child development, with a primary focus on measurements and early stunting detection results. This proposal also details field trials to measure the effectiveness and user response to the interactive baby weighing system.

The implementation of this system is expected to contribute to detecting significant changes in weight and height. Through more active monitoring, it is hoped that this system can become an effective tool in efforts to prevent stunting and improve overall infant health.

Keywords: Stunting, scales, application, measurement.