

## ABSTRACT

Removal of heavy equipment from one place to get to a destination that is expected to be a vital activity in some industries such as ports and heavy equipment company. In the process of moving the heavy equipment needed a tool that can ease the burden in order to move goods easily so that the work can be completed safely.

Tools such as overhead crane is a tool used to simplify the process of moving goods in the heavy equipment industry and ports. Goods are moved by overhead crane can be likened to a pendulum, this way we can get a mathematical model for the overhead crane that can then be calculated constants for PD and Fuzzy system.

The system is operated via a smartphone with Android OS. The results of the displacement of the position set by the user in units centimeter (cm). The results indicate an error response to hardware error  $\pm 13.93\%$  and the average transfer time of 4.84 seconds.

**keyword:** *Microcontroller, Overhead Crane, Wireless*