DESIGN AND BUILD A ROTARY DIRECTION CONTROL SYSTEM AND ANALYSIS OF 3-PHASE INDUCTION MOTOR STARTING CURRENT BASED ON PROGRAMMABLE LOGIC CONTROL (PLC) AND INTERNET OF THINGS (IoT)

Name	: M. Fiqih Aulia
Nim	: 3204201358
Supervisor	: Zainal Abidin, ST., MT.

ABSTRACT

This research aims to design and build a rotary direction control system and analyze the starting current in a 3-phase induction motor based on Programmable Logic Control (PLC) and Internet of Things (IoT). 3-phase induction motors are an important component in the industry, and control of the direction of rotation and monitoring of the starting current are crucial aspects to ensure optimal performance and avoid damage. The developed system uses PLC as the main controller to monitor and control the motor, and utilizes IoT technology for real-time monitoring and data collection remotely. The implementation of this system allows for increased operational efficiency and provides ease of management through an IoT-based interface. The results of the analysis show that this control system is effective in managing the direction of rotation of the motorcycle and is able to provide accurate starting current data for the purpose of evaluating motor performance.

Keywords: *3-Phase Induction Motor, Programmable Logic Control (PLC), Internet of Things (IoT), Rotation Direction, Starting Current.*