

## **ABSTRACT**

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Design and Implementation Sinkronisation Speed Two Conveyor Using Programmable Logic Control (PLC) OMRON CP1H

Programmable Logic Controller (PLC) are now widely used in industry. PLC is used to control the tools that are needed to work automatically and repeatedly. PLC has many features that correspond to penggunaan in large factories. Some of the benefits of PLCs that have a predictable outcome, it is easy to use controls including conveyor.

In this thesis, two conveyor will be designed to control speed. The design followed the conveyor so that the two conveyor fuzzyfikasi can to be used and in accordance with the time, although in a variety of conditions. PLCs are used in the design of the PLC Omron CP1H.

The results of this Final Project is a system that is in a PLC as a controller to synchronize the speed of two methods fuzzyfikasi konveyer .. Having compared the language Ladder pemrograma more efficient for this system. DC motor rotation before the maximum load was 600 rpm. After a given load, belt konveyer, rpm speed drops to a maximum of 420 rpm. The distance that can be time offset synchronization is pada *offset* waktu 0,6,9,12,18,21,27 dan 33 detik.

Keywords: programmable logic control (PLC), Conveyor, Fuzzyfikasi