ABSTRACT

Nowadays, technological progress are developing so rapidly. Because of that, advanances in technology develop rapidly. Therefore, it demands the creation of an increased availability of new equipment, in order to support a company's processes and to simplify some work. competition in the industrial world demands of creating enchancements about the avability of new equitment for supporting product in a company. In this final project a two-ways belt conveyor system is designed as a means of tranportation that plays an important role in the process of moving goods from one place to another which can be used in companies especially factories.

Belt conveyor two ways is a goods transfer, tool, they have a belt that can hold on of solid object and have two paths that can move together with opposites direction. This conveyor is equipped with a load cell sensor that used to detect available or not object on the conveyor, a speed sensor (optocoupler) that used to see the speed produced by the conveyor, DC motor and driver motor are used as a driving device for the conveyor and the power supply that used as voltage source. Speed this conveyor was controlled by IoT. And, in this research was used pid method.

After doing research, the conveyor can run well by using PID parameter with Kp = 3.98, Ki = 0.4, and Kd = 3.25. output from this research is can controlled speed conveyor with IoT. So that, by using this tool we can reduce the lateness of materials production processing and delivery.

Keywords: speed control of two-ways belt conveyor, PID method, IoT.