

## ABSTRACT

### **PENGENDALIAN KECEPATAN MOTOR DC PENGUATAN TERPISAH DENGAN PWM PADA KONVEYOR MESIN PEMOTONG PLAT PT.TJAJAJA AGUNG TUNGGAL**

By :

**Gigih Yumantoro**  
**NRP : 6408.030.048**

Supervisor:

**Lilik Subiyanto, S.T**  
**NIP. 196901301997021001**

*The electric motor is one of the electrical equipment of the most widely used in industry was the world, one of which is a DC motor that is used to supply DC loads. The advantages of DC motors are relatively easy to obtain and set the speed of rotation. Setting speed to use is to use a technique PWM (Pulse Width Modulation), one of the techniques to control the speed of DC motors are commonly used. PWM technique for setting the motor speed is, setting the motor speed by changing the magnitude of the pulse duty cycle. Changing pulse is what determines the motor speed. The amount of amplitude and pulse frequency is fixed, while the amount of duty cycle varies according to the desired speed, the greater the duty cycle then the faster the motor speed, and conversely the smaller the duty cycle then the motor speed too slow. By using PWM, it can adjust the firing angle of thyristor. The greater the angle firing (trigger point), the output voltage of the rectifier 3 phase fully controlled (SCR Bridge) will be smaller, so the speed of dc motor will decrease proportional to the applied voltage. Thus, setting the desired speed of the conveyor speed will be easier and faster identification of problems so that production can run smoothly.*