# ABSTRACT

Nowadays the use of robotics technology in the industrial sector began to grow rapidly. AGV (Automated Guided Vehicle) is one type of mobile robot which is widely used to deliver stuff from one place to anotherguided by the track. Generally, the trajectory of AGV is a line which ispinned in the floor surface. Line recognition system is performed by distinguishing colors line and floor surfaces, yet this way is less effectivefor the line recognition systems rely heavily on color quality.

To overcome these problems, in this final project designed a line recognition system using magnetic tape as a line trajectory. Hall effect magnetic sensor type used to detect the magnetic field strength that owned by magnetic tape. Data analog from sensor readings then determined the average value in order to obtain the more stable of sensor readings values. Then, the data is used as input to identify the type of line being traversed by the AGV.

From these results, it was found that the result of the introduction of a line of magnetic with a magnetic sensor hall effect 49E type that generate accuracy value in a straight trajectory by 24%, the turn right trajectory by 20%, the turn left trajectoryby0%, 3-way intersectionby 0% , 4-way intersection by 0%. Unfavorable of the accuracyline recognition value is due to the strong magnetic field that is owned by amagnetic tape is very weak along with thestandard of magnetic sensor capabilities.

Key Word : AGV (Automated Guided Vehicle), Magnetic Sensor, Line Recognizing