

ABSTRACT

Solar energy is currently being developed into alternative energy because of its easy and efficient use. Installation of solar panels statically causes the level of efficiency that is not optimal. So that the electrical energy produced is not optimal. The ideal solar panel position is perpendicular to the sun in order to produce maximum electrical energy.

To overcome this, a portable and controllable solar panel system equipped with a solar tracker system using fuzzy logic will be designed to adjust the position of the solar panels to sunlight. In this applied system, solar panels can move according to the direction of the sun and can also be controlled by the user according to their needs. The result of this experiment are solar panel have more efficiency about 16% when installed with solar tracker than solar panel that are installed static. This system also can be installed on a moving vehicle, one of which is an Automated Guided Vehicle.

Keywords - *Portable Solar Tracker, Controllable Solar Tracker, Solar Vehicle, Solar AGV*