ABSTRACT

Development of traffic lights has been fast enough, one of which is with the additional information on how long an interval every lighting condition to facilitate the road users. On the other hand, this condition is still incomplete, because the information or event is only known at that particular location, while the observers or the authorities about it not knowing the truth. In addition, its main resource uses electrical energy (PLN) in which this condition will potentially be one way of triggering the emergence of an energy crisis.

To correct this condition, hence the need for a monitoring system of centralized traffic lights, for each occurrence and lamp condition can be monitored closely. In addition, this centralized system should be able to control each lamp and to provide an adjustable interval. While on the lamp must be able to give information as feedback to the lamp status monitoring system. To anticipate the energy dependence of the distorted line, hence the need for alternative energy, in this case is used solar cells that use solar energy.

With a system of centralized monitoring and control of this, it is expected to handle a damaged condition and to regulate the course of a traffic light system better. While the use of solar cells, it is expected the system to have redundancy systems as a form of anticipated dependence on electrical energy. In the end, a traffic light system is expected to help the user and environmentally friendly way.

Keywords: traffic lights, monitoring, control, solar cells, alternative energy, environmentally friendly.