ABSTRACT

PROTOTYPE OF AUTOMATIC AIR CIRCULATION ROLLER PASS INDOOR AIR QUALITY CONTROL BASED ON MICROKONTROLLER

Air pollution by industrial activity, follow expert researcher, can risk increase the happening of lungs cancer. But, risk that evoked by air pollution outside room obvious far smaller is compared with pollution in room. Researchers proves that air pollution level in room is five times more polutif from pollution at metropolis area. Expert also register, necessary minimal time two week to genuinely sterilizes a room after dirty air pollution, like cigarette burning remainder, dust, chemical ingredient (perfume and room cleaner). For helping contend overcome air pollution in room is need a ventilation system as draught in room. But ventilation commonly use (exhaust fan) less effective to decrease air pollution at room in the case of power that used.

This prototype is be one of the alternative solution from various troubleshoot. This prototype works by using censor TGS-2600 that can to detect indoor air quality control. If censor detects gas besides the O2, so censor obstacle decreaseds that causes tension in also decreased because obstacle in proportion to with tension exist in censor. Censor will give data shaped tension change to ADC found on sismin AVR ATMEGA8535 later on will displayed in module LCD. Display of LCD show air quality moment certain and tension change in censor product. If clean air quality, so fan not rolling, while if air found pollution so fan rolling to circulate air so that will return normal.

Keyword: *Censor TGS-2600, microkontroller,* LCD, *exhaust fan*