ABSTRACT

Small generator in the life of our day has been used. Generator is very much the form of variations, brands and power capacity. However generators are usually not equipped with any control equipment so that it is bad in producing power. Poor power quality that generated far from the standard electricity, causing damage to the various equipment that supplied by these generators. At the end of the project, the stake is made up of electronic control on the load of power that serves to maintain the frequency generator always constant. Another case with governor, the advantage of this tool as a supplement load complement on consumer load and the load changes from unstable generator. This system is applied into the control system using mikrokontroller. This system uses the frequency censor types censor IC LM 2917 as censor change of frequency. This censor detects the frequency and convert to voltage, which then read by mikrokontroller, further data will be processed to determine the large ignition angle from circuit with a series of TCA 785. TCA 785 series of this function as the size of the ignition angle on TRIAC to set the power that can be absorbed by the complement load so get the constant power at generator. At the constant generator power available frequency ranges from 50.5 Hz to 49.5 Hz (percent error = 2%) with little frequency changes outside the range that caused by unstable generator. Control system produces a stable frequency, good in condition with load or not.

Key Words: circuit ignition, censor of frequency, complement load.