ABSTRAK

PENGARUH BEBAN PADA PENGUKURAN FREKUENSI MENGGUNAKAN FREKUENSI METER DIGITAL BERBASIS MIKROKONTROLER ATMega 8535

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The frequency is a quantity important in the operation of the system of electric power. The frequency of expressed as the amount of vibration or waves per second or in one period of time. The measurement of the frequency is very important to know the value of the frequency of every time and a measuring instrument frequencies used to meet standard equipment measuring the frequency of digital or with a digital display more favored because it is easy in the reading of the results of the measurement of, but the price of a measuring instrument this is more expensive. So therefore need to be made an instrument measuring the frequency of digital relatively cheap as an alternative in the provision of a measuring instrument frequency.

The result showed that the frequency of digital meters based microcontroller atmega8535 made capable of measuring the value of the frequency with good about over a range 1-1000 Hz. Testing was conducted using load passive, combination resistor, inductor and a capacitor and testing by the use of electronic burden namely a rectifier half a wave length and waves full. The results of testing shows that the mistake relatively the measurement of obtained less than 3 % compared to result of measuring by the use of the frequency of commercial digital meters. In addition the influence of load the electricity is very small on the perceived value a frequency that is measured using the frequency of digital meters microcontroller atmega8535 based.

Key words: Frequency, Frequency meters digital, load passive, load electronic, microcontroller