

## **ABSTRACT**

*With the passage of time, availability of fuel is less however increase need it, so that we need alternative energy that get easily and safety are electric energy. As we know that becoming increasingly gas slightly and the risk of fire is very high that one way is to make the induction cooker sourced electricity or can be said as induction heating and to overcome the lack of knowledge about fire method that was designed portable electric stove that can carried everywhere because this induction cooker uses accumulators as source. The use of electricity has become the main factor to meet human needs so that in general most people require electrical equipment.*

*Induction cooker sourced from AKI (12V DC) then controlled frequency using LM555 astable circuit operation, and then output of the timer circuit will go to MOSFET driver circuit, this MOSFET driver has function for distributed inverter circuit, after that proceed to the series resonant circuit that includes coils and capacitors are arranged in series.*

*In this final project the writer uses water as an object to be heated to a maximum temperature of 100 ° C, while the frequency used is 14.13KHz, 16.99KHz, 19.6KHz and 30.68KHz according to the calculation of the series resonant circuit. Water that used 0.5Kg, 0.3Kg, 0.1Kg with maximal 70 minute time of experiment. This electric stove has three efficiency, namely: first, the efficiency of the circuit, most of the water obtained in the test with 0.1Kg of 89.89%. second, the efficiency of heating equipment, most of the water obtained in the test with 0.1Kg of 61.69%. and third, the total efficiency, most of the water obtained in the test with 0.1Kg of 52.48%.*

**Keywords : Electric stove, Driver MOSFET, Inverter.**