

## **ABSTRACT**

*The need for energy consumption now from time to time is considered to be a very important matter, especially the energy needs which are a source of energy to operate various tools used in the vicinity. The energy used at this time generally uses fossil energy so that it will run out if used continuously so that alternative energy is needed so that the need for electrical energy is met.*

*In this study utilizing a thermoelectric generator module as a medium to convert energy. The thermoelectric generator module is one of the thermoelectric components that is often used for generating electricity from heat sources. This module works based on the seebeck principle where it will result in a heat absorption process and heat release on each side of the thermoelectric chip.*

*This thermoelectric module will be designed to work optimally at a constant time. Things that can affect the results of the design output are heat induced from the heat source.*

*In this design three experiments were conducted and the average voltage and current using the direct system were 0.19 volts and 0.018 amperes, the system used heatsinks of 0.3 volts and 0.027 amperes, and for systems using ceramics and heatsinks of 0.15 volts and 0.013 amperes. From the results of testing and analysis, the system uses heatsinks better when compared to direct systems or systems using ceramics and heatsinks.*

**Keywords:** *Thermoelectric generator, seebeck effect, heat induction*