

ABSTRACT

The thermoelectric generator is solid-state devices that do the conversion direct energy of heat energy due to different temperatures into electrical energy based on the Seebeck effect. In this research will be done this system of measurement of a performance thermoelectric generator module by making use of the value of voltage (V) , a current (A) , the capacity of heat engine displacement (Q_h) in order to get a performance of three thermoelectric modules which will be tested are. Three thermoelectric modules being tested is TEG type SP-1848 equal with different fabrication. In the process of testing, there are two parameters tested in the form of temperature the efficiency of the heat on thermoelectric module generator and the value of produced thermoelectric generator module against a difference in temperature thermoelectric generator module. Set point in testing thermoelectric generator module in part of the side of heat thermoelectric module to do controlled by using dimmer at the temperature 50°C to 110°C. From the testing obtained TEG-C having better performance and high compared with another TEG module amounted to 0.103 % and produce values amounted to 0.138 V.

Keyword: Thermoelectric generator, efficiency, difference of temperature