

Review of potential thermoelectric energy harvesting using Seebeck effect

ABSTRACT

Now a days, the world tend to use renewable energy such as wind, solar, and biomass energy to dispensing on fossil fuel and saved other type of energy like electricity. Thermoelectric based on Seebeck effect an important technique that used as a renewable energy to produce electricity by harvesting waste heat from applications that produce thermal energy as a result of its operation. This study presented review of thermoelectric which based on Seebeck effect with its historical, cost, and applications in engine and human body. This review show that the thermoelectric application could be classified based on average power which generated as low power generation (human applications) and high power generation (internal combustion engine applications). The review show that the voltage generated from thermoelectric generator as a result of heat harvesting from engine application is more than that generated as a result of heat harvesting from human body application.

Keyword: Seebeck; Peltier; Thermoelectric; Energy harvesting