GENERATING ELECTRICITY FROM WASTE HEAT USING LOW COST THERMO-ELECTRIC POWER GENERATOR FOR USE IN DEVELOPING COUNTRIES

Kaluarachchi P.N.\textsuperscript{1,*}, Attygalle M.L.C.\textsuperscript{1} and Subasinghe N.D.\textsuperscript{2}

\textsuperscript{1}Department of Physics University of Sri Jayewardenepura, Sri Lanka
\textsuperscript{2}Department of Earth Sciences, National Institute of Fundamental Studies, Sri Lanka
nkprobo@gmail.com

Thermo electricity is the mechanism of electricity generation using heat. We have proposed a low cost solid state thermo-electric generator unit using readily available materials. This low cost solid state thermo-electric generator unit consists of thirty Al-Fe junctions. This newly built module made as a prototype of a thermo-electric generator and we have obtained a maximum voltage of 10mV and current of 150\mu A by maintaining a temperature difference of 55\degree C.

\textit{Keywords:} Thermo-electricity, semiconductors