

Electricity Generated From Exhaust Gases

Aditya S. Shinde, Atharv S. Satpute, Aniket A. Ugale, Sanket N. Patil

Department of Electrical Engineering

Guru Gobind Singh Polytechnic, Nashik, Maharashtra, India

aadityashinde2003@gmail.com, athrvsatpute5@gmail.com, ugaleaniket84@gmail.com, sanketnp2003@gamil.com

Abstract: *In present scenario, some countries (India, Japan, South Korea, China) generate 74% electricity from coal. Radio activity pollution, heating, global warming etc. causes in environment because burning of fossil fuel, oil, gas etc. Also in industry, most of the expenses are due to energy (both electrical and thermal) labour and materials. Therefore ensuring environment free with including several advantages, a new technology need to be introduce. A thermoelectric module (TEG) can convert waste heat (exhaust gases from vehicle, thermal power plant and gases generated in village while burning of wood, petrol, diesel) directly in DC voltage (electricity) using seebeck effect. A thermoelectric module (TEG) is a solid state device. It cannot produce any waste during electricity production. Hence thermoelectric systems contribute to 'Green Technologies' or 'Renewable Source' specifically for waste heat recovery from industry exhausting flue gases. Thermoelectric module is position-independent and flexible present along operating life time. This technique can have associated most outcome. The selection can have appliance which convert waste heat energy directly into electric power improve overall efficiencies of conversion system. It can be used in urban and rural areas. This technique will help in cost reduction of electricity. Waste heat required for this conversion is also less. By using this energy is used to operate AC as well as DC appliances. The target is to tackle problem facing the traditional single-stage system and to advance TEG application.*

Keywords: Waste heat, thermoelectric module, seebeck effect, thermoelectric generator, thermoelectric material, direct energy conversion, renewable source, electricity

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