R IJR

International Journal of Research

Available at https://edupediapublications.org/journals

e-ISSN: 2348-6848 p-ISSN: 2348-795X Volume 05 Issue 12 April 2018

Literature survey of Power Generation from waste heat by using Thermoelectric Generator

Sibu Harne*1, Vilas Giradkar*2, Jivan Sarva*3, Triveni Manwatkar*4

*1Department of electrical engineering
Jhulelal Institute of Technology, Nagpur (M.S), India – 441111
sibu.harne880@gmail.com¹, giradkar.vilas@gmail.com², jeevan.sarva90111@gmail.com³,
trishamanwatkar143@gmail.com⁴

ABSTRACT

In this paper we are doing literature survey on power generation from waste heat by using thermoelectric generator. In our project we using thermoelectric module for power generation so in proposed paper literature survey of different reference paper thermoelectric generator works on the principle of seebeck effect. The phenomena in which two dissimilar materials junction are placed in between two different temperature its generate EMF.

Keywords: Research Paper, Technical Writing, Science, Engineering and Technology

I. INTRODUCTION

It introduces the Framework for the case study that comprises the main focus of the research described in the literature review of power generation from Waste heat by using thermoelectric generator the main purpose of this literature review is true easily understand our project and help to build the hardware.

II. Literature survey

1. Literature survey 1:- Jihad G. Haidar, Jamil I. Ghojel, "waste heat recovery from the exhaust of low- power Diesel engine using thermoelectric generators, $20^{\rm TH}$ international conference on thermoelectric(2001), p413-417

From literature survey 1 we studied how to recover waste heat and how to utilize waste heat from different industries.

2. Literature survey 2:- Mariem SAIDA, Ghada ZAIBI, Mounir SAMET, Abdennaceur KACHOURI, A new design of thermoelectric generator for health monitoring, 2017 International Conference on Smart, Monitored and Controlled Cities (SM2C), Kerkennah, Tunisia, February, 17-19, 2017, p 59-63

From literature survey 2 we analysed about thermoelectric generator and its specification.

3. Literature survey 3:- Ahaad Hussein Alladeen, Shanshui Yang, Yazhu Liu, Feng Cao, Thermoelectric waste heat recovery with cooling system for low gradient temperature using power conditioning to supply 28V to a DC bus, 2017 IEEE Transportation Electrification Conference and Expo, Asia-Pacific (ITEC Asia-Pacific), 2017

From literature survey 3 we studied different types of cooling system and different types of coolant.

4. Literature survey 4:- Arash Edvin Risseh, Electrical Power Conditioning System for Thermoelectric Waste Heat Recovery in Commercial Vehicles, IEEE Transactions on transportation electrification, 2018, p 2-16

From literature survey 4 we got an idea about how to recover the waste heat from automobile application

5. Literature survey 5:- T.J Zhu, Y.Q. Cao, F. Yan And X.B. Zhao, nano structuring and Thermoelectric properties of Semiconductor Tellurides, 2007 International Conference on Thermo electrics

From literature survey 5 we knew about thermoelectric materials and its properties.

R

International Journal of Research

Available at https://edupediapublications.org/journals

e-ISSN: 2348-6848 p-ISSN: 2348-795X Volume 05 Issue 12 April 2018

III. Conclusion

In this literature review is proposed to help the reader to understand different aspects posted by the research on. This paper will be beneficial for other person who will research on this topic. This paper also helps to prepare our project hardware.

IV. Reference

- [1]. Jihad G. Haidar, Jamil I. Ghojel, "waste heat recovery from the exhaust of low-power Diesel engine using thermoelectric generators, 20TH international conference on thermoelectric (2001), p413-417.
- [2]. Ali Shakouri, Nanoscale Device for Solid State Refrigeration and Power Generation, 20th IEEE SEMITHERM Symposium.
- [3]. T.J Zhu, Y.Q. Cao, F. Yan And X.B. Zhao, nanostructuring and Thermoelectric properties of Semiconductor Tellurides, 2007 International Conference on Thermoelectrics.
- [4]. E.A. Hoffmann, H.A. Nilsson, N. Nakpathomkun, A.I.Persson, L. Samuelson, H. Linke Nanoscale thermoelectric Power Generation.
- [5]. 5.Bhaskaran Muralidharan, Power-efficiency trade-off in nanoscale thermoelectric energy conversion, 2012 IEEE.
- [6]. Mariem SAIDA, Ghada ZAIBI, Mounir SAMET, Abdennaceur KACHOURI, A new design of thermoelectric generator for health monitoring, 2017 International Conference on Smart, Monitored and Controlled Cities (SM2C), Kerkennah, Tunisia, February, 17-19, 2017, p 59-63.
- [7]. Ahaad Hussein Alladeen, Shanshui Yang, Yazhu Liu, Feng Cao, Thermoelectric waste heat recovery with cooling system for low gradient temperature using power conditioning to supply 28V to a DC bus, 2017 IEEE Transportation Electrification Conference and Expo, Asia-Pacific (ITEC Asia-Pacific), 2017.
- [8]. Arash Edvin Risseh, Electrical Power Conditioning System for Thermoelectric Waste Heat Recovery in Commercial Vehicles, IEEE

TRANSACTIONS ON TRANSPORTATION ELECTRIFICATION, 2018, p2-16.

- [9]. E.A. Hoffmann',1H.A. Nilsson2, N. Nakpathomkun 1, A.I. Persson 1,2L. Samuelson2, H. Linkel, Nanoscale thermoelectric power generation, p 101-102, 2008 IEEE.
- [10]. Liping Wang, Alessandro Romagnoli, Cooling System Investigation of Thermoelectric
- [11]. Generator Used for Marine Waste Heat Recovery, p 1-6, 2016 IEEE.