

Treadmill E – Bicycle

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Abstract: *Walking a bicycle is a totally new way of moving. The combination of gear mechanisms boosts your walking pace up to the moderate speed of a regular bike. When we are walking on the treadmill, the rollers are pushed back, which creates some mechanical energy. The movement of the belt on the rollers will drive the gear fitted on the treadmill's last roller, which will further drive the vehicle with a chain mechanism. And the same shaft is coupled with the machine, which converts mechanical energy into electrical energy. As we are using a DC generator, the amount of power generated completely depends on the input rpm that we provide. This energy can be stored in the battery and used for lateral application. When the vehicle is at a standstill, as there is no load, the input speed will be high, and therefore we can generate more power. But in the case of a running engine, the amount of power generation will be moderate because the load applied will increase and the speed will decrease, resulting in a lower amount of power being generated.*

Keywords: Bicycle.

REFERENCES

- [1]. Dr.RavikiranKisan MD, Dr.SwapnaliRavikiranKisan MD, Dr. Anita OR MD &Dr.Chandrakala SP MD “Treadmill and Bicycle Ergometer Exercise: Cardiovascular Response comparison” Global Journal Of Medical Research, vol. 12, pp. 23-26, June 2012
- [2]. ChetanMahadik, SumitMahindrakar and Prof.JayashreeDeka “An Improved & Efficient Electric Bicycle system with the Power of Real- time Information Sharing” Multidisciplinary Journal On Research In Engineering And Technology, vol. 1, pp. 215-222, June 2014
- [3]. Prof. V. Sekar and Prof. V. Thiyagarajan had studied on “Controlling of brushless DC motor in electric bicycle using electronic based circuit with 8 bit microcontroller” International Journal of Engineering Sciences &Emerging Technologies, vol. 4, pp. 26-34, Dec 2012
- [4]. Prof. Pradeep M. Ingole and MukundManas “Ergonomic design of bicycle handle.” International Journal of Emerging Technology and Advanced Engineering vol.5, pp. 472-481, April 2015
- [5]. Sr. Prof. Lecturer ShivajiBhandarkar “Vehicular Pollution, their effects on human health and mitigation measures” Vehicle Engineering (VE) vol. 1, pp. 33-40, June 2013