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Design & development of a gravity powered fan using gear transmission (Article)

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Abstract

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The provision of affordable and sustainable living has become one of the biggest challenges to rural and marginalized people where access to electricity is prohibitively expensive. The conventional energy generation and the sole nature of fossil fuels have promoted the use of renewable energy methods. There are various categories of renewable and non-renewable energy resources which are present in our planet, one of them being gravitational energy. This paper covers the design, experimentation, and development of a prototype of a fan which converts the gravitational energy to kinetic energy of the impellers by a falling mass with the help of gears for the generation of air. Renewable energy will play a vital role in providing thermal comfort to the vast population in developing hot climate countries where access to electricity is limited. © 2018 Authors.

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