

## Man-power Using Dual Rotor Generator

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**Abstract:** With the progress of human civilization and path breaking technological development in the current century there is a growing demand of electricity day by day. But with the existing technology it is very difficult to address the social concern/demand because of depleting input sources such as coal, oil and gas. As a result, there are clean and environment friendly alternative source of generating electricity using wind power, solar power, fuel cell etc. in a cost effective manner. The financial viability and return on investment (ROI) factor with the existing source of electrical energy generation have also to be compared/benchmark with viable alternative. Thus the technique like non-conventional energy source becomes popular to produce electricity at a local/ regional level with the aid of certain devices at a minimal cost. The present work discusses a viable cost-effective solution to generate electricity using physical energy of the human being. The work suggest three basic devices to convert physicals energy to electrical energy as, (i) movable device (torch light), (ii) semi-movable device (emergency light), and (iii) fixed device (exerciser). The high power density, high efficiency dual-rotor generator is used to converts energy to electrical energy. The design and development of torpidly wound double-rotor permanent magnet generator carries out. The work takes care of device weight, size and efficiency to make the device user friendly. Thus the work tries to show a new concept of non-conventional energy sources with zero running cost.

**Keywords :** Non-conventional energy source, movable device, semi-movable device, fixed devices, dual rotor generator.