

Electricity Generation using Turbo-Ventilator

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Abstract: *This study presents three different approaches to harnessing electricity generation from modified roof ventilators. The first approach focuses on enhancing the system's efficiency by incorporating additional fins for increased spinning speed. The second approach utilizes the warm air naturally expelled from crowded spaces, such as auditoriums and workplaces, to generate electrical energy through rooftop ventilators. Lastly, the third approach combines wind energy and roof ventilators, integrating small direct current electric generators to produce electricity for various applications.*

By optimizing design and performance, these systems offer sustainable solutions for low-speed wind areas and provide alternatives to fossil fuel-based electricity generation. The observed performances include voltage and current measurements of the roof ventilator, batteries, and connected loads. The results demonstrate the potential of these innovative systems to generate electricity and contribute to reducing environmental pollution.

Keywords: Turbo-Ventilator

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