

## **PERFORMANCE EVALUATION OF WIND ENERGY CONVERSION SYSTEM AS AN ALTERNATIVE ENERGY SOURCE IN INDIAN CONDITION**

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### **Abstract**

In many developing countries, particularly in the rural areas, wood is the primary source of energy. However, using wood as fuel has its own demerits like difficult collection of fuel, limited availability, continued use may cause desert encroachment, deforestation, drought, and adverse environmental impact. Moreover in many countries, fossil fuel is mainly used in electrical power generating plants. As petroleum resources are being sharply depleted [1], it is necessary to diversify power generation method so as to conserve these fuels for prime applications. Less use of fossil fuels will also reduce the emission of carbon dioxide (CO<sub>2</sub>) and other green house gases into the environment. Moreover, import of petroleum fuels must be reduced because they are expensive.

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