

Energy Generation by Advanced Various Renewable Technology

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Abstract: *Aim of this project is to production of electric energy using variable renewable technology, which is to be provided for the daily purpose. About 50% of the electricity used in India is generated by thermal power plants, which release a lot of toxic pollutants into the air and have a lot of negative environmental effects. Due to the high demand for electricity and the rising costs of coal and fuels, it has recently been noticed that there is an electricity crisis or shortage in India and other nations following the pandemic era. Since India is a nation that is constantly developing, there is a rising need for electricity. After all, coal is a type of fossil fuel whose supply will eventually run out, necessitating a shift to renewable technology. Over the road dividers, a vertical-axis wind turbine (VAWT) is being installed. As the car moves along the road, wind turbulence becomes trapped in the VAWT's blades, causing them to rotate and produce electricity. Additionally, we mount the solar panel over the VAWT, which generates electricity as well. When we apply this concept, a small hydroelectric power plant is built if there are nearby water bodies, such as ponds, rivers, dams, and water treatment facilities. A large amount of electricity can be generated by combining three renewable energy sources. It helps you reduce pollution in the atmosphere, earn carbon credits, and make energy generation economical. In our study, we found that about 0.5–1 KW of electricity can be generated in an hour, depending on the availability of wind turbulence and light intensity. This technology is capable of supplying electricity to one home.*

Keywords: Renewable Technology, Vertical Axis Turbine, Renewable Integration, Renewable Energy, Hydro-electricity, Solar Energy, Economical Energy, etc.

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