

Power Generation from Renewal Energy on Highway and Monitoring

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Abstract: *This project deals with the generation of electrical energy using windmills mounted on the median of the highways. As we know that wind energy is produced to a certain amount during vehicle movement due to the difference in pressure created by them in both the sides of highways. The energy produced can be harnessed in an efficient manner using Vertical Axis Wind Turbine. The VAWT is installed in the median of the roads in such a way the wind would act tangentially on the blades in opposite direction of the turbine thus effectively harnessing the wind energy from either sides of the median. Electrical energy is generated by a generator coupled to the turbine. The generated energy is stored in battery during day time. This energy is supplied to street lights during night time through DC-DC converter and inverter.*

Keywords: Vertical Axis Wind Turbine, DC-DC converter, Single Phase Inverter, MOSFET, Microcontroller.

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