

## A study on Campus-Friendly Solar Powered Electric Vehicle

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**Abstract** - This paper presents a study on campus-friendly solar powered electric vehicle. Solar energy is one of the important sources of renewable energy which can be a feasible alternative to fossil fuels. On a bright sunny day the sun rays give off approximately 800-1,000 watts of energy per square meter of the earth surface. If energy from the sun is clean and free, why aren't we using it to power our vehicles? Is a solar powered vehicle a good solution? Solar power is the term for using the sun's energy to power a device or an electrical system. Solar panels are made up of a grid of solar cells. These cells collect the sun's energy and convert it into electrical energy. Now the Solar vehicles harness energy from the sun by converting it into electricity. This electricity fuels the battery that runs the vehicles motor. Instead of using a battery, some solar vehicles direct the power straight to an electric motor. Nowadays the solar vehicles can be categorized as a 'green vehicle' which is powered by renewable energy with zero carbon emission.

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**Key words:** Solar energy, solar powered electric vehicle (SPEVs), grid, solar cells, Green vehicle