

VISVESVARAYA TECHNOLOGICAL UNIVERSITY
BELGAUM-590014



**A Project Report
On**

“Solar Powered Bicycle-SURAYAASHWA”

*A project report submitted in partial fulfillment of the requirements for the award of the degree of **Bachelor of Engineering in Electrical and Electronics Engineering** of Visvesvaraya Technological University, Belgaum*

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ABSTRACT

The running costs of the present vehicles are rising day by day hence common man is looking for an alternate mode of transport, with low fuel and maintenance cost. SURYAASHWA is an attempt to meet these needs. It is an environmentally sustainable and zero running cost vehicle.

“SURYAASHWA” uses photovoltaic cells to absorb energy from sunlight. The absorbed energy is stored in battery. The hub motor mounted on the rear wheel uses this energy to run the cycle. A fully charged battery gives a mileage of 15-20km. It is also provided with manual pedaling which increases the cycle’s mileage further. Average speed of the cycle is 15-18kmph.

Solar power has become popular in the fields of domestic heating and lighting but this project is a stepping stone in solar powering a bicycle. It acts as an effective means of private transport with zero running cost for people to commute from remote villages to nearby town.

Our main intent is to reach grass root level population of India to make a common man’s daily commutation affordable and foresee a pollution free environment. This idea can revolutionize a common man’s lifestyle