

Low cost e-Rickshaw for Rural Transportation

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Introduction:

Electric Rickshaws are eco-friendly battery-operated three-wheelers that have a better economy and lower operational cum maintenance costs. These e-rickshaws does not emit toxic pollutants into the air during operation and hence, does not have any tailpipe. These vehicles have gained popularity amongst Indian rickshaw drivers and commuters.

e-rickshaw have become popular as a new means of transportation in the rural areas, can replace vehicles operated on conventional fuels petrol and diesel. Because increase in the cost of conventional fuels e-rickshaw become most popular application in the rural areas of India. The proposed project mainly focuses in the design and development of e-Rickshaw, which can be used for various applications of agriculture in rural areas. They have also become new source of livelihood for the unskilled and illiterate in India. Recently electrical rickshaw is three-wheel battery operated vehicles. Since e-rickshaw are battery powered and have zero emissions, they are considered as almost pollution free and thus environment friendly means of transportation. They are easy to operate and have lost maintenance and running cost but, they offer more return to the investment made by the owner's-rickshaw require minimum initial investment and less human effort to earn a living and these vehicles also playing significant role as a means of local transportation for the shorter distances in rural transportation in many states of India.

Objectives:

- To design and fabricate the rickshaw frame for the payload capacity of 250 kg.
- To develop the suitable electric transmission system to drive the rickshaw.
- To conduct performance study and compare e-rickshaw with conventional transportation.