

Clean tech and energy

The National institute of engineering, Mysore/ 1st SEM/ E&C - B Section

PROBLEM STATEMENT

How to get hot water even during monsoon through solar energy (Solar to heat conversion)

TEAM MEMBERS

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INTRODUCTION

The system, therefore, should be either connected to an electric geyser in the house or an electrical back-up should be provided in the storage tank of the system which is switched on when water is not sufficiently hot. So, you get hot water all the time even on rainy days

One of the biggest benefits of a solar water heater is its dependence on the sun's rays to heat water. Solar energy, as we know, is a clean and renewable source of energy. This cancels out the need for electricity that is sourced from natural gas or fossil fuels. A solar water heater cannot be used to get hot water on a cloudy day as there is no Sun which is necessary for the working of solar water heater.

IDEA GENERATION:

A dual axis solar tracker which can follow sun's movement in both north-south and east-west direction maximising the amount of sunlight falling increasing the efficiency and output. RESULT: The team created a working prototype of a solar tracker. The outer body of the prototype was designed by 3D printer whereas the base was cut and engraved using laser cutting machine. The solar panel was connected to arduino. Servo motors and LDR sensors were connected to the arduino. The moment light is made to fall on the LDR sensors, the servo motors will move the solar panel in that direction.

PROTOTYPE IMAGES



