

ADVANCED SOLAR WATER HEATER SYSTEM



B.H.Gardi College of
Engineering and Technology

Smt. T.V.Mehta Charitable Foundation

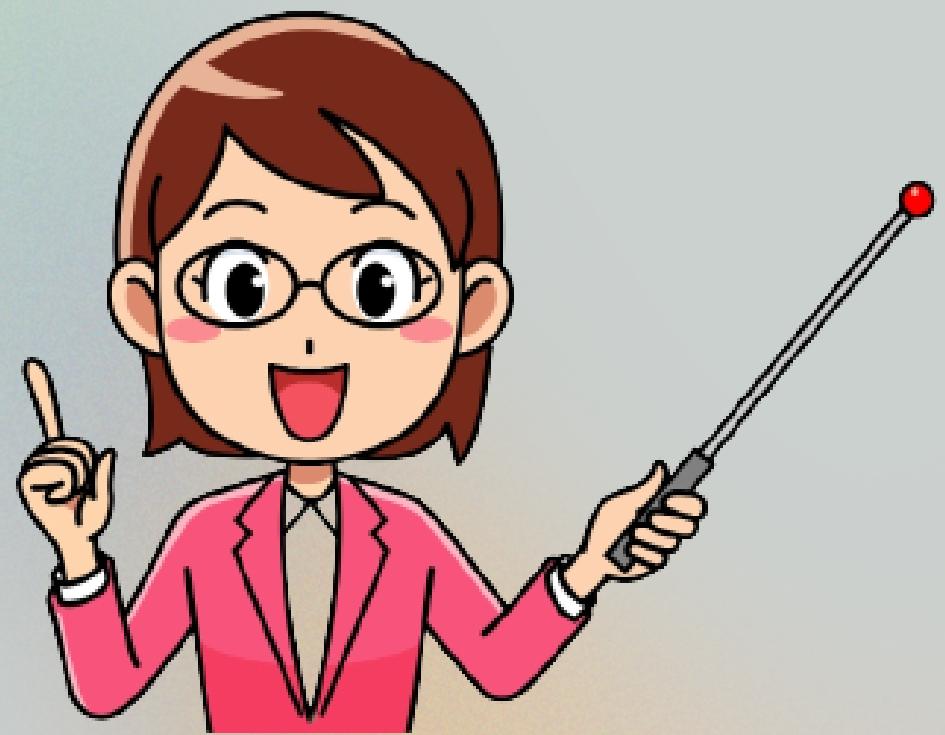


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PROBLEM STATEMENT



In the current solar water heater system, hot water is available during summer due to more sunlight. But in winter the water becomes cold due to less sunlight and less heat. Even in monsoon sometimes the water becomes cold due to less sunlight.



OUR SCOPE

- OUR SMART SOLAR WATER HEATER SYSTEM PROVIDES HOT WATER AT SET IN ANY CONDITION.
- THE CUSTOMER CAN SET REQUIRED WATER TEMPERATURE AND THE SYSTEM TRIES TO MAINTAINS THIS TEMPERATURE IN THE STORAGE TANK.
- THE WATER LEVEL AND WATER TEMPERATURE ARE DISPLAYED ON STORAGE WATER TANK.
- SO CUSTOMER CAN GET HOT RUNNING WATER 24*7.



TECHNICAL SPECIFICATIONS



- SUNLIGHT SENSOR ARRAY
- TEMPERATURE SENSOR
- TANK WATER LEVEL INDICATOR
- LCD SCREEN
- WATER TEMPERATURE CONTROLLER



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ECONOMICAL VIABILITY

- In all existing solar water heater system there is no such facility given to maintain water temperature in storage tank.
- Also There are is no facility to set the required water temperature.
- So due to these features (and some other features) of the system makes it economically viable.



MARKET POTENTIAL AND TARGET CUSTOMERS

- THERE CAN BE HUGE MARKET FOR THIS PRODUCT AS CURRENTLY THERE IS NO SUCH PRODUCT PRESENT IN MARKET.
- TARGET CUSTOMER: THE SYSTEM CAN BE INSTALLED IN EXISTING CUSTOMER HOTEL BUILDING HOSTEL BUILDINGS RESIDENTIAL BUILDINGS,FLATS,TENAMENTS INDUSTRIES



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COMPETITION



- NO OTHER COMPANY OR MANUFACTURER BUILDS SUCH SYSTEM CURRENTLY.
- SO RIGHT NOW THERE IS NO COMPETITION WITH OTHERS.



BUSINESS MODEL AND REVENUE STREAM

- WE MAY START PRODUCTION, MANUFACTURING AND INSTALLATION OF ADVANCED SOLAR WATER HEATER SYSTEM.
- WE MAY SIGN MOU WITH SOLAR WATER HEATER MANUFACTURING COMPANIES FOR MODIFICATION OF CURRENTLY INSTALLED SYSTEM
- WE MAY FILE IPR(PATENT) AND SALE THE DESIGN TO MANUFACTURING COMPANIES



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ROAD AHEAD

- Build prototype model of system
- Testing, calibration and troubleshooting of system
- Install complete system for testing in real world
- MOU with solar water heater manufacturing companies



TYPES OF COMPONENTS:-

- 1. Solar system**
- 2. Arduino**
- 3. Day/Night sensor(LDR)**
- 4. Heater**
- 5. tanks**
- 6. Temperature sensor**
- 7. D.C. Water Motor**
- 8. Water Level Indicator**
- 9. Pressure Sensor**
- 10. Filter**



ADVANTAGES

- Main advantage of advanced solar water heater system is that hot water can be obtained continuously day and night.
- It is easy to add existing solar water heater system.
- To set required temperature of water.
- It is display of water levels.
- It is display water temperature.
- Low maintenance cost.
- Easy to troubleshooting .

