



**RFID BASED SOLAR ELECTRIC
VEHICLE CHARGING STATION**



A PROJECT REPORT

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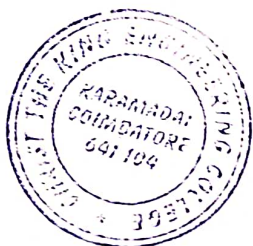
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ABSTRACT

Solar Energy is a sustainable source of energy, it is an infinite and clean source of energy that is free and ecofriendly. So, it is a very efficient & free from environment pollution for surrounding. The problem is "Are electric vehicles an eco-friendly mode of transportation and can electric vehicles replace traditional vehicles in terms of pollution?" Recharging stations are necessary for longer drive vehicles and it is commonly used in few countries. The traveling distance depends on the capacity of energy storage present in the vehicle. The recharging stations are needed for long distance travel.

In our project, we have introduced RFID based solar charging mechanism for EVs. Our aim is to increase the electric charging station by solar setup. LCD display will display, which parking slot available for the vehicle charging. In future, increasing electric vehicles leads to these charging stations busy. The solar has been used for electric vehicle charging. Solar generates the power and that will be stored in battery which maintained in the power station. Once the vehicle is connected to the charging point, voltage sensor will monitor the flow of voltage. In case any short circuit or heavy voltage emits from the base station, immediately sensor detects the parameter and cut off the electric unit. Total units consumed and total amount will be displayed in the LCD. This approach reduces the pollution and increases the usage of EVs as a result creating pollution free environment.

Keywords : Solar Energy, Electric vehicle(EV), RFID, charging stations.




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CHAPTER 6

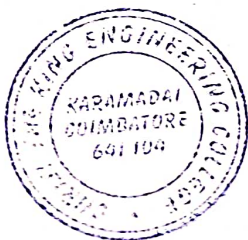
CONCLUSION AND FUTURE SCOPE


6.1 CONCLUSION

Due to the development of the charging stations this effect was also neglected hence the charging station is very efficient. Fast charging stations will be needed to facilitate longer EV travel distances, including inter-regional trips. They should be placed in larger cities where there is a concentrated population of EV drivers so stations can also be used by local residents. The planning for fast charging stations should be coordinated at the State level and attempt to align with regular routes for government or private fleets of EVs. Electric vehicle smart charging station which is the promising alternative and environmentally sustainable solution to meet up the energy crisis.

To reduce pollution, a battery powered electric vehicle that uses solar array to recharge will be the promising alternative to the existing system. Combining the organic solar cells with electric vehicles and developing Renewable Charging Stations at places will improve the overall efficiency and moreover this will act as a widespread promotion for clean energy at a global level.

In this paper, a new recharging mechanism for electric vehicles is proposed using solar. The usage of EV is directly affected by the present charging technique. Recharging stations are necessary for longer drive vehicles and it is commonly used in few countries. The traveling distance depends on the capacity of energy storage present in the vehicle. The recharging stations are needed for long distance travel. In this paper, we have introduced RFID based solar charging mechanism for EVs. The solar has been used for electric vehicle charging. At last,




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