

# IOT-BASED EV SMART PARKING AND GREEN CHARGING SYSTEM



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# ABSTRACT:

The development and growth of electric vehicles(EVs) have increased several folds during the last 10 years. EVs are a green and sustainable alternative to LPG and diesel vehicles that pollute and threaten the environment, especially for CO2 reduction and alternative energy uses. Due to the increasing popularity of EVs nowadays there is an increased demand for charging stations. Additionally, parking cars has always been a difficult chore. Consequently, EV also needs a reliable parking system. Our current project entails "Smart Parking as well as Green Charging system of EV." We are using the Node MCU, Arduino UNO, Servomotor, and 6 IR sensors to develop an IOT-based car parking system. For a hassle-free parking system, we leverage the Internet of Things (IoT) and getting the information on Blynk application about the slot availability. The 2nd part of the project deals with the challenge of charging the EVs using a 15V solar panel that would be used to charge a 12V battery which rests on the platform where the designated car is parked.

A high-contrast, black and white photograph of the front of a dark-colored car. The car is centered in the frame, with its headlights and fog lights illuminated, creating bright circular glows against the dark background. The text "THANK YOU" is superimposed in the center of the image, over the car's hood.

THANK YOU