

Intelligent Battery Swapping System for Electric Vehicles with Charging Stations Locator on IoT and Cloud Platform

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Abstract: *Having a sufficient charging infrastructure is crucial to the rapid uptake of electric vehicles (EVs). The availability of such infrastructure would eliminate several barriers related to the short range of EVs. A Battery Swapping Station (BSS) is a practical way to power electric vehicles (EVs) while reducing lengthy wait times at Battery Charging Stations (BCS). In contrast to the BCS, the BSS charges the batteries beforehand and gets them ready for a far faster battery swap. These charging stations may be able to offer special advantages to the power system because they can act as a middleman between EV owners and the grid. This essay explores the benefits of developing the BSS from a number of angles. In light of this, a model for battery charging scheduling from the viewpoint of the station owner is suggested. To demonstrate how the suggested model may assist BSS owners in managing their assets through scheduling battery charging time, an example is given.*

Keywords: Cloud, Monitoring, the Internet of Things

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