National E-Mobility Programme

Team name - PRASIMO

Team member -

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Challenge

What kind of interface can EESL built to increase the use of public charging stations?

Expectations

- A solution where electric vehicles can communicate with charging stations to provide automated information to EVS users in order to identify and reach out to the nearest charging station
- What can EESL do to upscale adaption of e-mobility in India.

Environmental ambient temperature problem

- environmental ambient temperature influences strongly the behavior of EV charging.
- Charging during winter leads to low charging rate, hence, higher charging time. Furthermore, the developed charging system is able to facilitate simultaneous quick-charging for EVs in both winter and summer compared to conventional quick charging system.

Past studies-

- Charging times increased significantly when the weather got cold.
- The more the temperature dropped, the longer it took to charge the battery. Under the coldest conditions, the rate of charging was roughly three times slower than at warmer temperatures.

Solution-

1. Block heater
2. Pre heat the battery

Two major interfces that we can use-

- Mobile application
- Another application may be inbuild car application which is inbuild in today’s modern cars dashboard.

Both interfaces should have these basic functionalites-

-seaches for nearby charging station and its gps route

- option of searching a charging station on your way to some destination

- It should list other services available at the charging station

- can reserve a charging station (reservation free for 30 minutes , if consumer doesn’t reach it is cancelled)

- should have easy interface to call EESL support for technical problems on charging station