

The objective of this project is to create an innovative and sustainable charging infrastructure that utilizes solar power generation systems as a primary source, fuel cells as a backup source, and wireless charging to support the increasing demand for electric mobility. Moreover, the project contributes to cost savings by reducing reliance on grid electricity and eliminating the need for costly infrastructure maintenance. By leveraging solar power and wireless charging, this project offers a sustainable, convenient, and cost-effective charging infrastructure for electric vehicles, supporting the transition towards a cleaner and greener transportation system. Firstly, it promotes sustainability and reduces greenhouse gas emissions by utilizing solar power instead of traditional fossil fuel-based charging methods. The wireless charging technology eliminates the need for physical cables or plugs, providing a convenient and user-friendly charging experience for EV owners. The scalability and flexibility of the car park allow for accommodating varying numbers of EVs, adapting to the evolving needs of the electric mobility ecosystem. Secondly, wireless charging enhances energy efficiency by minimizing the energy losses associated with cable-based charging systems.