Solar Based Wireless Electric Vehicle Charging Station for Authorised Person

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Abstract*: This research paper proposes solar wireless electric vehicle charging system Electric vehicles (EVs) have recently improved in terms of performance and range. There are many models on the market, and the number of electric cars on the road is growing rapidly. While current EVs are mostly charged via wires, companies like Tesla, BMW and Nissan have started developing wireless charging EVs that don't require large wires. The wireless connection (inductive) is not a physical connection, but effectively avoids the consequences of plugging and unplugging. In addition, wireless charging opens up new possibilities for dynamic charging - charging while driving. When implemented, the driving power of the electric car will not be limited and the need for battery capacity will be minimized. This was the first and it spread all over the world, mainly in England, Germany and South Korea. This article provides an informative review of wireless charging technologies for electric vehicles. Describes and compares the main techniques of wireless charging such as charging topologies, coil design and communication. New ways to use superconducting materials in coil construction to charge more energy are explored and their effects on wireless charging are discussed. Additionally, health and safety issues related to wireless payment and related systems are covered. Economically, the costs of various wireless charging systems are also noted and compared.*

Keywords: Embedded system, Rechargeable Battery, Transformer, Electric Vehicle, Solar Energy, Wireless Power Transmission