**Patent Reading Exercise**

**Title CHARGING SYSTEMS FOR ELECTRIC VEHICLES Number: US 2019 / 0039479 A1.**

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| **Area of the patent** |
| **This is in the area of the electric vehicles innovation. This basically shows a way in which electric vehicles can be charges and parked conventionally. This also shows that a vehicle and charging station can be designed such that an electric or hybrid vehicle can operate in a**  **fashion similar to a conventional vehicle by being opportu nity charged throughout a known route .** |
| **Problems cited in the Patent**  **According to the patent , current charging stations and charging methods are not sufficient for the mass charging. The way charging are done are not up to mark for the huge change in the global vehicles change ,which is getting shifted from petrol and diesel vehicles to electric vehicles. It also talks about incorporating charging station at low cost. Which could provide charging capacity to every types of vehicles.** |
| **Solution Suggested by the patent** |
| **The invention provides for systems and methods for charging an electric vehicle . One aspect of the invention provides for a charging station . The charging station can be used to transfer power to an electrically powered vehicle . The charging station may be used to transfer power to any electric vehicle , hybrid electric vehicle , or any other vehicle that may include a propulsion power source , such as a battery , ultracapacitor , or any other energy storage system . In some embodiments , an electrically powered vehicle may be a heavy duty vehicle , such as a bus or truck . This uses the different technique like charging using two different plates each having negative and positive electrodes. This technique could make the charging faster.** |
| **What advantages you think the patent if offering?** |
| **It could boost up the electric vehicle charging problem. It will also shift the focus from convention way to more modern ways of charging the vehicles. This provides accurate and easy way for the charging the different kind of vehicles.** |
| **Can you think of any other applications of the patent in any other area?** |
| **TATA which is gong to make different charging points all over the india. And also Delhi government is planing to set up the different charging stations in delhi at every 3 KM.There is a charging station algo is available for the expressways which is found by the tnajian university. This algo is going to solve the most of the problem related to traffic and queuing for charging and suggesting the vacant stations. Patent number:US 10 , 360 , 519 B2** |