

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441033643 A

(19) INDIA

(22) Date of filing of Application :27/04/2024

(43) Publication Date : 03/05/2024

(54) Title of the invention : ELECTRICAL VEHICLE CHARGING STATION WITH DYNAMIC POWER MANAGEMENT

(51) International classification :B60L0053680000, B60L0053670000, H02J0007000000, B60L0053650000, G06F0016290000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

The system (100) includes charging stations (102), a user device (104 A), a grid controlling module (106 A), a power management controller module (108) and a cloud database (110). The charging stations (102) consist of a local controller module (102 A) and a power converter module (102 B). The power management controller module (108) consists of a data receiving module (302), an AI powered control module (304) and a communication module (306). The grid controlling module (106 A) consists of a monitoring module (302), a control module (304) and a user interface module (306). The power management controller module (108) that configured to receive signals from a grid (106), the charging stations (102), user device (104 A), generate the controls signals using artificial intelligence technique and sends the control signals to charging stations (102) & the user device (104 A). This system facilitates the optimized charging process by dynamically adjusting to grid conditions and user demands.

No. of Pages : 19 No. of Claims : 9