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(54) Title of the invention : PERSONALIZED MULTIPURPOSE SOLAR EV CHARGER FOR DOMESTIC AND COMMERCIAL USE

<p>(51) International classification :B60L53/30, B60L53/51, B60L53/63, H02J3/46, H02M1/10, H02S20/23, H02S20/30, H02S40/30</p> <p>(86) International Application No :NA Filing Date :NA</p> <p>(87) International Publication No : NA</p> <p>(61) Patent of Addition to Application Number :NA Filing Date :NA</p> <p>(62) Divisional to Application Number :NA Filing Date :NA</p>	<p>(71)Name of Applicant : <b>1)Chitkara University</b> Address of Applicant :Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India. Patiala -----</p> <p><b>2)Chitkara Innovation Incubator Foundation</b> Name of Applicant : NA Address of Applicant : NA</p> <p>(72)Name of Inventor : <b>1)BAGLA, Suraj</b> Address of Applicant :#2124, Sector 13, HUDA, Bhiwani - 127021, Haryana, India. Bhiwani -----</p> <p><b>2)KUMAR, Akhilesh</b> Address of Applicant :House no 264, Street no 1, Abadi Guru Nagar, Verka, Amritsar – 143501, Punjab, India. Amritsar -----</p> <p><b>3)JASHWARA, Sushanta</b> Address of Applicant :Madhya Banamalipur, Agartala, Tripura (W) -799007, India. Agartala -----</p>
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(57) Abstract :

The present disclosure relates to a solar EV charging system is disclosed for both domestic and commercial applications. The system includes a common charging space (100) designed to house various vehicles like two-wheelers (2W), three-wheelers (3W), and four-wheelers (4W). Within this space, a solar-powered charging station (110) captures and converts solar energy for electric vehicle charging. To enhance efficiency, a thermal insulation layer (120) is linked with the charging station (110) to reduce heat-related energy loss. Notably, the system features a hybrid energy source mechanism (130) allowing for both solar and public electric supply usage. Furthermore, an energy distribution unit (140) is incorporated, channeling any surplus energy for broader domestic or commercial needs. The design may also incorporate a sheltering structure, energy storage capabilities, and a security mechanism (150) for added safety and unauthorized access prevention.

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