

(54) Title of the invention : ROBOTIC CLEANING SYSTEM FOR SOLAR PANEL

<p>(51) International classification :H02S0040100000, F24S0040200000, A46B0013020000, B08B0001000000, B08B0001040000</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 Jansla, Rajpura, Punjab - 140401, India. -----  <b>2)Chitkara Innovation Incubator Foundation</b>  Name of Applicant : NA  Address of Applicant : NA</p> <p>(72)Name of Inventor :  <b>1)SOLANKI, Vikas</b>  Address of Applicant :Chitkara University Institute of Engineering and Technology, Chitkara University, Chandigarh-Patiala National Highway, Village Jansla, Rajpura, Punjab - 140401, India. -----  <b>2)SAHOO, Bidush Kumar</b>  Address of Applicant :Department of Computer Science and Engineering, GIET University, Gunupur, At – Gobriguda, Po-Kharling, Gunupur, Odisha - 765022, India. -----  <b>3)MOHAPATRA, Srikanta</b>  Address of Applicant :Chitkara University Institute of Engineering and Technology, Chitkara University, Chandigarh-Patiala National Highway, Village Jansla, Rajpura, Punjab - 140401, India. -----  <b>4)LAMBA, Vikas</b>  Address of Applicant :Chitkara University Institute of Engineering and Technology, Chitkara University, Chandigarh-Patiala National Highway, Village Jansla, Rajpura, Punjab - 140401, India. -----  <b>5)RAJAT</b>  Address of Applicant :Chitkara University Institute of Engineering and Technology, Chitkara University, Chandigarh-Patiala National Highway, Village Jansla, Rajpura, Punjab - 140401, India. -----  <b>6)KAWATRA, Ruchi</b>  Address of Applicant :Chitkara University Institute of Engineering and Technology, Chitkara University, Chandigarh-Patiala National Highway, Village Jansla, Rajpura, Punjab - 140401, India. -----  <b>7)VAJPAYEE, Amit</b>  Address of Applicant :Chitkara University Institute of Engineering and Technology, Chitkara University, Chandigarh-Patiala National Highway, Village Jansla, Rajpura, Punjab - 140401, India. -----  <b>8)BALI, Malvinder Singh</b>  Address of Applicant :Chitkara University Institute of Engineering and Technology, Chitkara University, Chandigarh-Patiala National Highway, Village Jansla, Rajpura, Punjab - 140401, India. -----  <b>9)AHUJA, Sachin</b>  Address of Applicant :Chitkara University Institute of Engineering and Technology, Chitkara University, Chandigarh-Patiala National Highway, Village Jansla, Rajpura, Punjab - 140401, India. -----  <b>10)SINGLA, Chaitanya</b>  Address of Applicant :Chitkara University Institute of Engineering and Technology, Chitkara University, Chandigarh-Patiala National Highway, Village Jansla, Rajpura, Punjab - 140401, India. -----</p>
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(57) Abstract :

The present invention relates to the cleaning of solar panels to increase their life, and efficiency, to achieve more electrical power. The cleaning system (100) mounted on the platform (122) moving through the DC gear motor (112-1), a mechanical robotic arm (118) where the lower part is connected with the DC gear motor (112-1) to move it in 180-degree plane, and the upper part coupled with rotating brushes (120) rotated through a servo motor (112-1). A camera (110) to scan the surface of the solar panels, movably connected with another servo motor (112-2), and send signals to a control unit (114). An arduino microcontroller (102), L298N driver module (104), and a DTMF decoder (116) for receiving signals, processing, and transmitting packets of data for the start of the cleaning operation.

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