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(71)**Name of Applicant :**
I): SWAMI VIVEKANANDA UNIVERSITY
Address of Applicant :SWAMI VIVEKANANDA UNIVERSITY Telinipara, Barasat - Barrackpore Rd, Bara Kanthalia, West Bengal – 700121, India. Bara Kanthalia ----------
Name of Applicant : NA
Address of Applicant : NA
(72)**Name of Inventor :**
1)DR. RANJAN KUMAR
Address of Applicant :SWAMI VIVEKANANDA UNIVERSITY Telinipara, Barasat - Barrackpore Rd, Bara Kanthalia, West Bengal – 700121, India. Bara Kanthalia ----------
2)DR. SAMRAT BISWAS
Address of Applicant :SWAMI VIVEKANANDA UNIVERSITY Telinipara, Barasat - Barrackpore Rd, Bara Kanthalia, West Bengal – 700121, India. Bara Kanthalia ----------
3)MR. ABHISHEK DHAR
Address of Applicant :SWAMI VIVEKANANDA UNIVERSITY Telinipara, Barasat - Barrackpore Rd, Bara Kanthalia, West Bengal – 700121, India. Bara Kanthalia ----------
4)MR. SAURABH ADHIKARI
Address of Applicant :SWAMI VIVEKANANDA UNIVERSITY Telinipara, Barasat - Barrackpore Rd, Bara Kanthalia, West Bengal – 700121, India. Bara Kanthalia ----------
5)DR. SAIKAT MAJUMDAR
Address of Applicant :SWAMI VIVEKANANDA UNIVERSITY Telinipara, Barasat - Barrackpore Rd, Bara Kanthalia, West Bengal – 700121, India. Bara Kanthalia ----------

(57) Abstract :
Technology in agriculture is evolving quickly. Construction and production infrastructure for farms, as well as farm equipment, are continually being upgraded. There are several agricultural applications that photovoltaic (PV) technologies are appropriate for. When utility companies determine that a PV solution is the best option for a remote agricultural necessity like water pumping for crops or livestock, they install systems in these applications, which are a combination of individual installations and utility company systems. There are two fundamental parts that make up a solar-powered water pumping system. PV panels and pumps are these. The solar cell is the smallest component of a PV panel. Each solar cell contains two or more layers of semiconductor material that have been properly prepared to generate direct current (DC) power when exposed to light. The wiring in the panel collects this DC current. After that, it is either fed to a DC pump, which uses the power of the sun to pump water, or it is stored in batteries for later use by the pump. This article's goal is to describe how a solar-powered water pumping system operates and how it differs from other energy sources.

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