CLAIMS

What is Claimed is:

1. A solar panel installation structure at least comprising:

a solar panel is provided with a lap joint plate and a solar cell; said lap joint plate has a flat portion, a first joint portion and a second joint portion are provided on both sides of said flat portion, and said solar cell is arranged above the flat portion; an insulating layer is provided between said solar cell and said flat portion to avoid direct contact between the solar cell and the flat portion; a protective layer is provided above said solar cell, an area of said protective layer is larger than an area of said solar cell, and a periphery of the protective layer extends to said flat portion to completely cover the solar cell; an inside of said protective layer is provided with an adhesive layer, so that said solar cell is sealed between said insulating layer and said protective layer; a plurality of light collecting grooves are provided above said protective layer to concentrate an oblique sunlight on the solar cell, so an amount of electrons and electron holes of the solar cell are increased, and a photoelectric transformation efficiency is improved;

wherein a height of said first joint portion and said second joint portion are higher than said flat portion, so that rainwater is collected and flow to the flat portion, and directly wash the solar cell above the flat portion.

2. The solar panel installation structure according to claim 1, wherein said light collecting grooves is composed of a flat bottom wall and a beveled side wall, said beveled side wall of the light collecting grooves utilizes light reflection and light refraction to let the oblique sunlight to be concentrated and irradiated on a surface of said solar cell.

3. The solar panel installation structure according to claim 1, wherein said protective layer is made of fluoropolymer.

4. The solar panel installation structure according to claim 3, wherein said fluoropolymer is polytetrafluoroethylene.

5. The solar panel installation structure according to claim 1, wherein said solar cell is provided with a plurality of wires, a control box and a plurality of output wires, said control box connects said wires and said output wires respectively, and the output wires of adjacent solar cell is connected to each other, so that all solar cell are connected in series, and an electric energy generated by the solar cell is output to an external electrical equipment or a electricity storage equipment.

6. The solar panel installation structure according to claim 1, wherein there are at least two said solar panels, and adjacent solar panels are combined with

each other by the first joint portion of one solar panel and the second joint portion of the other solar panel.

7. The solar panel installation structure according to claim 1, wherein there are at least two said solar panels, said first joint portion and the second joint portion is a snap-fit structure, a snap-fit end of the first joint portion of one solar panel is buckled at a snap-fit groove of the second joint portion of the other solar panel when two adjacent solar panels are combined with each other.

8. The solar panel installation structure according to claim 1, wherein there are at least two said solar panels, said first joint portion and the second joint portion is a fixed structure, the first joint portion of one solar panel and the second joint portion of the other solar panel are superimposed on each other, and then the first joint portion of one solar panel and the second joint portion of the other solar panel are fixed by a fixing element when two adjacent solar panels are combined with each other.

9. The solar panel installation structure according to claim 1, wherein there are at least two said solar panels, said first joint portion and the second joint portion is a stranded structure, the first joint portion of one solar panel and the second joint portion of the other solar panel are superimposed on each other,

and then the first joint portion of one solar panel and the second joint portion of the other solar panel are twisted and fixed by a processing tool when two adjacent solar panels are combined with each other.