Green Technology

Dwikat, Atheer

Hamayel, Wafaa

It is natural that plants need water and light to carry out the process of photosynthesis, so they need constant irrigation of limited quantities. There are a lot of problems and difficult conditions faced by Palestinian farmers such as the difficulty of reaching their land because of the Israeli settlements, and the cut out of water and electricity. In addition to other problems that farmers face. These problems and many others aroused this research problem and that is the decline in agricultural product specifications and failing most of the time as a result of many reasons. These include the lack of proper amounts of water and light for the plant. So it becomes necessary to look for suitable solutions for these problems. Hence came the idea of the project which is based on the process of watering- automatic control of lawns by using solar cells to avoid the problem of wasted water and the exploitation of solar energy for the production of an excellent plants. The project is designed so as to give the appropriate amount of water to the plant when the signal is sent from the system into the soil to the operating system connected with solar cells to provide electricity to the garden. It has also been provided with optical resistors tracking direct sunlight. In the absence of the sun, the solar cells return back to the reception mode of sunlight in the morning. The garden is also provided by LDR to light the garden at night. The conditions could be controlled to produce distinctive plants without polluting soil or air and without wasting water and electric power.

Awards Won: