IOT BASED SOLAR APPLICATIONS

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ABSTRACT

Solar energy is one of the most important renewable energy which is freely available energy from the sun. As this energy is freely available there is growth for solar industries on global level. But the main challenge faced by the solar industries is the efficiency of the solar application. In any solar application the conversion of the solar energy into required energy form is the main task that is what it makes the system less efficient. For any solar application the overall performance or efficiency is approximately equal to 15-18%. Therefore, to increase the efficiency by maximum utilization of the solar energy we can adopt the latest technologies like internet of things (IoT) software solution. To enhance the efficiency we can use the new technologies like internet of things (IoT), artificial intelligence (AI), machine learning (ML), etc. In this paper we are mainly focusing on improving efficiency of solar applications using IoT. We can use smart sensors for solar tracking system so as to utilize maximum energy from sun and transfer the data to the whole system. In this study we are mainly focusing on implementation of IoT in solar water heating system to utilize maximum solar energy in domestic solar water heating system which is one of the important part of green building management in urban areas.