Multi Purpose Smart Solar Device

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The water storage tanks used across Pakistan are usually made of fiber or plastic. The temperature of water in these storage tanks rises unbearably in summers and falls in winters. This problem is unavoidable globally. To my finest knowledge, the solution of this problem has not been achieved with a single device maintaining the cost effectiveness, global environmental issues. Different types of geysers (Electrical, Gas) are used to raise temperature of water in winters that has high running cost and cause pollution. The solar geysers are unaffordable. There is no effective solution for keeping temperature of water low in summers. This innovative design was created by fusing the characteristics of solar devices and thermos; it uses basic phenomenon of conduction, convection, radiation, reflection, insulation and green house effect. The test run of this device in summers to keep the temperature of water low, with respect to its surrounding as compare to other tanks, there was appreciable difference in temperate of 10C^0. In winters, it raised the temperature of water by 55C^0. Dual nature of this device and the cost effectiveness makes it far better than other solar devices. This device is smart because it has artificial intelligence. It adjusts itself according to its surroundings to yield maximum result. It can easily be controlled by an android application. The slight advancement in device can give us liberty to use it as solar distiller, oven, fruit drier, and room heater. It can also be used to increase the biogas production in winters.

Awards Won:

Third Award of $1,000