World Academy of Science, Engineering and Technology
International Journal of Energy and Environmental Engineering
Vol:17, No:12, 2023

A Solar Heating System Performance on the Microclimate of an Agricultural Greenhouse

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Abstract : The experiment adopted a natural technique of heating and cooling an agricultural greenhouse to reduce the fuel consumption and CO2 emissions based on the heating of a transfer fluid that circulates inside the greenhouse through a solar copper coil positioned at the roof of the greenhouse. This experimental study is devoted to the performance evaluation of a solar heating system to improve the microclimate of a greenhouse during the cold period, especially in the Mediterranean climate. This integrated solar system for heating has a positive impact on the quality and quantity of the products under the study greenhouse.

Keywords : solar system, agricultural greenhouse, heating, storage
Conference Title : ICAGEM 2023 : International Conference on Advances in Green Energy Materials
Conference Location : Rome, Italy
Conference Dates : December 11-12, 2023