



SOLAR RADIATION MODELING AND MEASUREMENTS IN TIMISOARA, ROMANIA: DATA AND MODEL QUALITY

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Abstract

This paper introduces the first station in Romania (Eastern Europe) outfitted for systematic monitoring of solar irradiance on tilted surfaces. The resulted database is in many aspects unique for Romania, allowing for the first time to derive specific parameters like diffuse fraction or sunshine number. Also for the first time, the data collected on tilted surfaces can be used to test models reported in literature and to recommend the most fitting for the region, as is detailed in the paper.

Key words: solar energy estimation, solar irradiance monitoring, tilted surfaces

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