TWO NEW PAIRS OF LOCAL SOLAR ANGLES AND THEIR CORRESPONDING TRACKING SYSTEMS

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Abstract: *In order to maintain the solar incidence angle orthogonal to the PV surface as much as possible, this paper analyzes the azimuthal tracking system; three angular pairs for the sun-ray orientation are identified in this reference system. For these angular pairs, three orientation mechanisms are derived; in the paper, these angular pairs and their corresponding mechanisms are modelled and analysed comparatively by numerical simulations in four particular cases.*

Key words: *PV panel, orientation systems, incidence angle, direct solar radiation, azimuthal tracking, energetic efficiency.*

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