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## Evaluation of the Peak-Sun Hour on a Tilted Surface in the City of Juliaca

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The solar energy that reaches a certain surface depends directly on the orientation of the surface and the position of the sun. The calculation of the Peak-Sun Hour is the main objective of this work, for this, the global solar radiation that affects a sloping surface is considered, and from this it is determined for periods, daily, monthly and annual. For validation, the global solar radiation data from NASA was used, obtaining a Pearson correlation of 0.84. An annual average of optimum tilt angle of  $-15.44^\circ$  was also obtained, which is equivalent to the latitude of the study area. Likewise, an annual average value of 5.41 peak solar hours was obtained. The result of our work will help users and engineers to determine the optimal performance of solar collectors in the city of Juliaca and the Region.

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