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Estimation solar radiation in Thailand using Angstrom-Prescott model and Interpolation empirical coefficients

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Angstrom-Prescott model, $H=H_0$ [a+b(s/S)], was estimated solar radiation for 11 meteorological stations in Thailand. The empirical coefficients (a,b) were calculated by using the least square model. Statistical values, Root mean square error (RMSE) and Correlation, were examined the estimated solar radiation with the measuring. The empirical coefficients were interpolated by using geographic information system (GIS). In the results, the statistical tests shown Angstrom-Prescott model is good performance to estimate solar radiation in Thailand as error is in 3-7 percent and the least square method is suitable for computing empirical coefficients. The interpolation of empirical coefficients can be calculated in every region in Thailand.

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