

Estimation of attenuation coefficient of solar radiation in the atmosphere of Thailand

Tuesday, 22 May 2018 15:15 (15 minutes)

The estimation of the attenuation coefficient of solar radiation in the atmosphere were used solar radiation data on a cloudless day. The data were collected from four measuring stations located in Chiang Mai, Ubon Ratchathani, Bangkok, and Songkhla during the years 2011-2015. Then, the relationship between the attenuation coefficient from solar radiation data and the surface data (air temperature, relative humidity and visibility data) in a mathematical model was investigated in this paper. The result showed that the relationship had a relatively high level of reliability. The attenuation coefficient was nearly equal to the value from the model. The attenuation coefficient from 85 meteorological stations across the country was calculated from the model. The result showed that seasonal change of the attenuation coefficient was high in the dry season and low in the rainy season.

Primary author: Mr PHOKATE, Sayan (Applied Physics, Faculty of Engineering, Khon Kaen Campus, Rajamangala University of Technology Isan, Khon Kaen, 40000)

Presenter: Mr PHOKATE, Sayan (Applied Physics, Faculty of Engineering, Khon Kaen Campus, Rajamangala University of Technology Isan, Khon Kaen, 40000)

Session Classification: A014: Environment (Poster)

Track Classification: Environmental Physics, Atmospheric Physics, Geophysics and Renewable Energy