

Ultraviolet Radiation Index Prediction in India Using Artificial Neural Network

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ABSTRACT

Sunlight has a significant effect on human health. It is well recognised that the Ultraviolet (UV) spectrum affects our bodies in several ways, including lowering energy and triggering biological processes. In this work, the authors developed an Artificial Neural Network (ANN) based model for the prediction of India's UV radiation index. The average daily UV radiation index from the period 2015 to 2023 has been used as the output parameter, while the average daily cloud cover, humidity, and air quality index have been used as the input. Moreover, a comparative study of various ANN models has been presented to determine the best one.

Keywords: UV Radiation Index; ANN; Air Quality Index (AQI)

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