

INFRARED AND PASSIVE MICROWAVE
SATELLITE RAINFALL ESTIMATE OVER TROPICS

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ABSTRACT

Precipitation is an important but highly variable atmospheric parameter. Existing rain gauge networks and weather radar cannot provide the temporal and spatial coverage that is needed to monitor it sufficiently. Thus, satellite measurements have the advantage of providing spatially homogenous observations over large areas.

The study was conducted to evaluate the performance of the combined infrared and passive microwave rainrate estimation (MWL) compared to the rain gauge values over the tropical region.

The results indicated that generally the MWL performed better than that of just infrared estimate alone. The correlation coefficients of the MWL varied from 0.74 to 0.78 as compared to rain gauge values. Despite the improvements, there are many difficulties and challenges in satellite rainfall estimation.