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SUBMITTED ABSTRACT

0.	Paper Number	3
	Session Name	1. Characterization and standardization of environmental measurements - traceability assurance
1.	Title of the paper	An Assessment of the UV A and UV B Radiometer Measurement and its comparison with Global Radiation

2.	Institution	India Meteorological Department			
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4.	Abstract of the paper
	<p>Solar Radiation measurements in India Meteorological Department started in November 1954, with measurements of Global Radiation at Pune. IMD maintains a network of 45 Solar Radiation Stations at different locations across the country. At all these stations, measurement of global solar radiation, diffuse, terrestrial, UV-A and UV B is being carried out while at a few selected stations Direct solar radiation are also measured. UV A measurement in IMD network have been started in 2009 and UV B in 2014. IMD relied heavily on accurate solar radiation data for their research. Their real-time solar radiation data was available at every 10 minutes. Historical datasets of solar radiation are a key element in designing solar power systems and energy efficient buildings; however finding accurate multi-year data near the design site has always proved challenging. One of the most widely used instruments to measure atmospheric UV radiation is the broad band UV filter radiometer. The lack of a standard calibration procedure for UV broad band filter radiometers introduces potentially large uncertainties in their measurement products. Although most UV calibration facilities take critical instrument properties that affect the measurement quality of UV filter radiometers into account, several properties need special consideration to keep the measurement uncertainty within acceptable limits. The relative magnitudes of the global, UVB and UVA radiation intensities for three stations- Pune, Jodhpur and Chennai. The monthly average hourly UV A and UV B at three sites has also been determined and a comparison of the values has been performed for all available hourly values from January 2015 through March 2018 for sites. It is observed that the monthly average and hourly UV data at the sites are never in the very high value. Key words: IMD, UVA, UV B and Global Radiation.</p>