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RETRIEVAL OF SEA SURFACE TEMPERATURE OVER POTERAN ISLAND WATER OF INDONESIA WITH LANDSAT 8 TIRS IMAGE: A PRELIMINARY ALGORITHM

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Abstract. The Sea Surface Temperature (SST) retrieval from satellites data Thus, it could provide SST data for a long time. Since, the algorithms of SST estimation by using Landsat 8 Thermal Band are sitedependence, we need to develop an applicable algorithm in Indonesian water. The aim of this research was to develop SST algorithms in the North Java Island Water. The data used are in-situ data measured on April 22, 2015 and also estimated brightness temperature data from Landsat 8 Thermal Band Image (band 10 and band 11). The algorithm was established using 45 data by assessing the relation of measured in-situ data and estimated brightness temperature. Then, the algorithm was validated by using another 40 points. The results showed that the good performance of the sea surface temperature algorithm with coefficient of determination (R^2) and Root Mean Square Error (*RMSE*) of 0.912 and 0.028, respectively.

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