

CORRELATION ANALYSIS BETWEEN GEOMAGNETIC AND IONOSPHERIC PARAMETER DURING DAY AND NIGHT TIME

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ABSTRACT

This project describes the correlation of geomagnetic parameters and ionospheric parameter during day and night time. Comparison on both parameters was made during quiet days. Total Electron Content (TEC) is extracted using Global Positioning System (GPS) dual frequency data which in RINEX format. The data was observed at receiver station Universiti Teknologi Mara, Arau (100.3° E 6.5° N). The GPS data was analyzed for 2 hours during day and night time while the analysis on geomagnetic parameters were based on data supplied by Space Environment Research Centre (SERC) Kyushu University, Japan. The station chosen is Cook Town, Australia (-15.48° S 145.25° E). Both data were analyzed on 18 to 21 July 2006. The analysis on both data shows strong correlation on geomagnetic parameters especially H and Z with ionospheric parameter.

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