CORRELATION AND ANALYSIS OF GEOMAGNETIC PARAMETERS DURING GEOMAGNETIC STORM

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MOHD FAIZUL BIN SUDIN
FACULTY OF ELECTRICAL ENGINEERING
UNIVERSITI TEKNOLOGI MARA
40450 SHAH ALAM,
SELANGOR, MALAYSIA

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ABSTRACT

Solar activities are one of the factors that affect the geomagnetic. From analysis that was done show the value of magnetic in the earth changes when effect by the solar activities such as coronal mass ejection (CME), solar flare and sun sport. The entire solar activities only take three day for arrive the earth and effect all the communication system, electricity, Radiation Hazards to Human, Biology, Navigation Systems and Satellites. Because of that, prediction and monitoring the magnetic variation becomes very importance thing. At the moment, the accuracy of the prediction and monitoring very low and the accuracy of prediction and monitoring the magnetic variation should be increased. The accuracy can be increased by analyzing the methods that are used for observation and execution of the raw data. This project is focus on develop the new method in execute the raw data whereby can be increase the accuracy of the monitoring the magnetic data. GUI (graphical user interface) is used in this project where it is one of tool for MATLAB programming. The parameter of magnetic that produces most of the effect on prediction and introduces serious accuracy degradation into the system is Magnetic Data Acquisition System (MAGDAS). By modeling this MAGDAS parameter, the evaluation of the prediction error and the correction of these prediction errors for differential prediction can be done. Thus, the analysis using the single frequency method using the graphical user interface is an easy, simple, more efficient and accurate way of determining and analyzing this MAGDAS parameter.

CONTENTS