**Report on**

**Analyzing Interplanetary Magnetic Field (IMF) data from OMNI**

Dated March 11th, 2018

**Introduction:**

The project is based on the demo task given on the GSOC website of Space@VT. The demo task fulfilled the need the for developing an IMF data monitoring tool using the OMNI database.

IMF (Interplanetary Magnetic Field) a.k.a. Heliospheric Magnetic Field (HMF) is the component of the solar magnetic field which is dragged out from the solar corona by the solar wind flow to fill the Solar System.

**Analysis:**

The solution provided uses OMNI data for the year 2018. Other data files can be added as well. It can print out specific data for a given day and hour in the year 2018 or can print out entire data-frame for reference. The repository at Github also contains a plotting tool which is still under development but is usable. A reference table is also provided to better help in reading the data

The project still works on the python console but can be integrated into a software by building GUI for it. The plotting tool still needs to worked on.

**Inference:**

The project satisfies the needs of the demo task suitably. The areas which need to be further developed (GUI, and plotting) are being worked on by me and can be provided if necessary. Feedback as well as constructive criticism is genuinely appreciated.

***Link to repository:*** <https://github.com/Vedant1202/Omni_IMF>

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