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Ionospheric variability during different geophysical phenomenon like meteorological phenomenon such as cyclone, thunderstorm etc.; seismic activities such as earthquake, tsunami etc. is a burning issue to the researchers. From earlier period the researchers are investigating about the cause and effect of ionospheric irregularity in different regions of the Earth. But technological development to help collecting the information about different parameters which play vital role in understanding these irregularities is an issue. The COSMIC satellite is one of the best technological developments which provide us large amount of Atmospheric and Ionospheric information regularly all over the Globe. In this study COSMIC satellite vertical profile data have been used to understand the ionospheric irregularities over Himalayan region during different Earthquakes occurred in recent past. Mainly near the dense plasma region this irregularities have been studied with the help of two parameters: Electron Content Ratio and Semi-Thickness Ratio. The correlative variation of these two parameters reveals important characteristics about pre and post-signature of ionospheric irregularities near the peak electron concentration region during pre and post-earthquake. As Himalayan region is extremely vulnerable in respect to the earthquake Occurrence in both occurrence frequency and intensity and this type of study using COSMIC satellite data over this region is very first, this study may help research community to understand new aspect of inospheric irregularity over this region.
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