

**Comment on manuscript entitled “Climatology of ionosphere over Nepal based on GPS TEC data from 2008 to 2018” by Pandit et al.**

**This work is publishable subject to modifications according to comments given in following.**

Comment 1; Reviewer is convinced with replies against previous comments by another reviewer

Some additional comments need to be answered:

**Abstract:**

Line 27-28: “The maximum value of TEC is observed during spring 28 equinoxes than autumn equinox with a few anomalies” Replace anomalies by asymmetries.

Line 28-30: It is now well established that winter anomaly is only phenomena of F2 peak. It is not a feature of seasonal variation in TEC. So modify sentence like-seasonal variation in TEC is observed to be a manifestation of variation of solar flux, particularly the level of solar flux in consecutive solstices. Also discuss paper <https://doi.org/10.1007/s10291-018-0795-x> in result section to explain seasonal variation in TEC. This paper clarifies misconception of winter anomaly in TEC.

**Introduction Section:**

Add following references from the Indian longitude sector

1. <https://doi.org/10.1007/s10509-019-3701-2>
2. <https://doi.org/10.1002/2014JA020559>

**Methodology Section**

Reframe title from “Data sets and data analysis” to Dataset

Everything else seems good.

**Results and Discussion**

Line 15-19 should be

“In this section, we present the diurnal, monthly, seasonal, solar cycle and geomagnetic variation in GPS TEC over Nepal during the solar cycle-24. Figure 1 represents the position of chosen GPS stations in Nepal for this study and Figure 2 represents the variation of sunspot number and solar flux during the period 2008-2018.”

Line 23: Increasing should be inclining and decreasing should be declining.

Line 4-5, page 6: remove following sentences or modify accordingly

“Diurnal variation of VTEC was studied by plotting similar 5 curves for all the days from year 2008 to 2018 for all chosen four stations.”

Line 19 page 7; Replace tecu by TECU, do similar changes throughout the paper.

Line 5-6 Page 8; Nepal sometimes shows features of EIA crest latitude and sometimes EIA trough stations.

This is totally wrong. Nepal is off crest region and lie in low-mid latitude region. It is not possible to exist in equatorial trough region. Remove sentence. Author should aware that magnetic equator is shifting towards south year by year.

Page 8: Reframe the text about winter anomaly following the comment given for abstract section.

### **Conclusion section**

**Line 25-26; “no diurnal 26 peak is observed during minimum and descending phases of the solar cycle”**

This is not true, modify it.

Remove word “winter anomaly” from text following comment given against abstract section.

Revise whole conclusion section and write it in very precise and systematic manner.

Good Luck!