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Interactive comment on "Climatology of ionosphere over Nepal based on GPS TEC data from 2008 to 2018" *by* Drabindra Pandit et al.

Anonymous Referee #1

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Summary The authors investigated the diurnal, monthly, annual, seasonal and solar cycle variations of VTEC at four locations in Nepal during the years 2008 to 2018. The results revealed a conventional diurnal variation pattern observed elsewhere and seasonal variation with maxima in spring equinox. Variability of TEC with solar activity was also reported. The authors claimed that this is the first report of a long-term study of the ionosphere over Nepal using TEC. This makes the work interesting and offers a good merit for publication.

Technical observations Page 2, Line 10: 'the' before 'most' should be deleted Page 2, Line 18-19: The sentence "Ouattara and Amory- Mazaudier (2012) showed solar activity occurring 18 different phases of solar cycle in diurnal variability" should be rewritten. Page 3, Line 9: Insert 'been' after 'have'

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Discussion paper

Page 6, line 28. Figure should always be written in full wherever is being referred to. It should also start with capital letter ‘F’. Check throughout the text Page 6, line 25: the subsection should be ‘3.3’. then consider correcting other subsections 3.4, 3.5 etc Page 8, line 19: What is the significance of subsection 3:4- “Effects of geomagnetic activity on TEC”?. The authors may have to delete the entire section

General observations The result section on seasonal variation has some elements of discussion while other subsections have only presentation of results.

The author should have combined their results and discussions together in a single section for easy comprehension. The present format allows the discussion to be overloaded with basic physics and thus make it a little complicated to understand.

The appropriate items under section 4 tagged ‘Discussions’ should be engaged to discuss the appropriate results itemized under section 3. Section 3 should be re-titled as ‘ Results and discussions’

Please also note the supplement to this comment:
https://angeo.copernicus.org/preprints/angeo-2020-82/angeo-2020-82-RC1-supplement.pdf

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