

Physical Research Laboratory

Ahmedabad

Space & Atmospheric Sciences Division

Division Seminar

Title: “Investigations on ionospheric processes over low latitudes during quiet and disturbed periods”

Speaker: Mr. Ankit Kumar

Date: 29 July 2019

Venue: Ground Floor Lecture Hall

Time: 16:00 hrs

Highlight of the talk:

Ionospheric plasma distribution in the F-region over low latitudes depends on various electrodynamics processes that occur over dip equatorial region. These processes depend on globally generated primary electric field in the ionosphere. In daytime, F-region plasma fountain, driven primarily by this primary electric field, distributes plasma over low latitudes. As a result, higher electron density (F region ionization crest region) is found over low latitudes instead of dip equatorial region (ionization trough region). As ionospheric electric field show day-to-day variability over the dip equatorial region, the plasma density over the ionization crest region also show day to day variability. Meridional wind also contributes to this variability. Further, the effects due to prompt and delayed electric fields and composition changes coming from high latitudes also change the ionization distribution over low latitudes. Based on observations obtained from a number of techniques, these aspects will be discussed in the present talk.

All interested are welcome.