Physical Research Laboratory
Ahmedabad
Area Seminar

(Space & Atmospheric Sciences Division)

Title: **"An evidence for prompt electric field disturbance driven by changes in the solar wind density under northward IMF Bz condition"**

Speaker: **Diptiranjan Rout**

Date: **20 June 2016**

Venue: **Ground Floor Lecture Hall**

Time: **16:00 hrs**

Highlight of the talk:

The effects of prompt penetration electric fields are generally observed over equatorial ionosphere during southward turning of interplanetary magnetic field (IMF Bz), northward turning of IMF Bz (after a steady southward condition) and also during the transient geomagnetic disturbances like substorm and storm sudden commencement. In one of our recent study, it is shown that three different types of prompt electric field disturbances, occurring in succession over a period of 6 hours, have affected the equatorial ionosphere-thermosphere system on a single night. These electric fields are shown to be associated with pseudobreak-up/substorm, prompt penetration due to southward turning of IMF Bz and also DP2 type processes. However, the effects of solar wind density in generating the prompt penetration electric field have not been investigated so far. The evidence in this regard is obtained recently. In this present talk, the effects of the solar wind density in causing prompt penetration electric field under northward IMF Bz condition will be presented.

All interested are welcome.