ICTS Seminar

Title	:	Development of Regional Ionospheric Data Assimilation Model: Understanding Nowcast/Forecast capability during Geomagnetic Storm Conditions
Speaker	:	P.B.S. Harsha (K L University, Vaddeswaram)
Date	:	Wednesday, 14th October 2020
Time	:	11:30 am (IST)

Abstract : The advent of ground and space based remote sensing observations largely improved the global ionospheric model prediction capability during geomagnetic storm conditions. In context, ionospheric data assimilation plays a major role in characterizing ionospheric effects. Developing a reliable ionospheric data assimilation model that can provide better forecast over Indian region is the discern task. The idea is to assimilate ground based Global Navigation Satellite System (GNSS) total electron content observations, COSMIC radio occultation profiles into the Thermosphere Ionosphere Electrodynamics General Circulation Model (TIEGCM) using Gauss-Markov Kalman filter methodology. The assimilation run for 15th to 20th March 2015 days under geomagnetic storm conditions is clearly understood. The model results predicted significant negative storm occurrence over Indian region priorly. Forecast metrics namely forecast skill and forecast score showcase reliability in the model forecast. The required improvements in the assimilation model predictions to provide short term ionospheric forecasts in regional/global aspects is discussed.

Venue : Online Seminar
Please click on the below link to join the zoom meeting
https://zoom.us/j/97939404270?pwd=cWh5MHFsR3RDZHdwN2dUdGlnUGo4QT09
Meeting ID: 979 3940 4270
Passcode: 894378