

School of Computer Science and Engineering (SCOPE)
B.Tech. CSE - BCSE498J Project-II/ CBS1904 - Capstone Project
Applicable for all B. Tech. Programme of 2021 batch

AY: 2024-2025

Semester: Winter

GUIDE CONSENT FORM

Guide Particulars:

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Name, email ID and Address of the External Guide (for SAP only)	
Start date and End date (for non-CDC / SAP only)	

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Title : Disturbance Time Storm (DST) Prediction using Deep Learning**Abstract (Not more than 2000 Characters)**

The prediction of intensity of geomagnetic storms, quantified by the disturbance-storm-time (DST) index, is crucial for minimizing disruptions to navigation systems, satellite operations, and power grids caused by geomagnetic disturbances. This research focuses on leveraging real-time solar wind data, satellite position, smoothed sunspot number from NASA's Advanced Composition Explorer (ACE) and NOAA's Deep Space Climate Observatory (DSCOVR) satellites to develop robust models for DST forecasting.

By utilizing machine learning and deep learning techniques, the study aims to capture complex non-linear relationships between solar wind parameters, satellite positional data, and sunspot activity, enabling accurate predictions of geomagnetic storm intensity. This study seeks to advance the field of geomagnetic storm prediction by exploring the potential of modern computational techniques to improve the accuracy and reliability of DST forecasting models.

For Guides:

- **Guide Approved on VTOP : Yes**
- **Verified Title and Abstract : Yes**
- **Available for all the reviews: Yes**

For Students:

- **Guide Finalized for Non-CDC Category : NA**
(Other categories choose NA)
- **Available for all the reviews: Yes**

Signature of the Students**Signature of the Guide with date****1.****2.****3.**