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:

Name and Emp ID	Dr. Geraldine Bessie Amali D (14055)
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Name and Address of the Company (**for non-CDC only**)	
Name, email ID and Address of the External Guide **(for SAP only)**	
Start date and End date (**for non-CDC / SAP only**)	

Project Team Information:

Register No.(s)	Name(s) of the student	Mobile No.	Email ID (other than VIT)
21BCE3174	Akshwin T	9443748870	akshwint.2003@gmail.com
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Title : Disturbance Time Storm (DST) Prediction using Artificial Intelligence

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**

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