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**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) |
| School | School of Computer Science and Engineering (SCOPE) |
| Mobile Number and  Email ID | 9489134212  geraldine.amali@vit.ac.in |
| 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 |
| 21BCE3288 | Ravin D | 9176091384 | ravin.d3107@gmail.com |
| 21BCE3880 | VinayDeep Jaiswal | 98936 80146 | vinay25deep@gmail.com |

**Title : Disturbance Time Storm (DST) Prediction using Artificial Intelligence**

**Abstract (Not more than 2000 Characters)**

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| 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.**