Department of Computer Science and Engineering
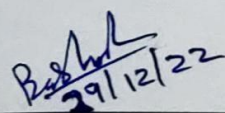
A. Y:2022-23   **IV B. Tech Even Semester**   **Y19 Batch**

Capstone Project – II Abstract Proforma

Register Numbers: 190031860 190031862 190031884	Project Title: Fake News Detection using Machine Learning and Natural Language Processing	Guide Name: Dr. Prashant Kumar Shukla Date: 28-12-2022

Project Abstract:

In today's world, when the internet is pervasive, everyone relies on a variety of online outlets for news. As the use of social media platforms such as Facebook, Twitter, and others has risen, information has spread quickly among tens of thousands of customers in a short amount of time. The spread of false information has far-reaching implications, ranging from affecting election results in favour of good candidates to forming skewed beliefs.

Furthermore, spammers profit from click-bait advertisements by using tempting content headlines. We want to do binary categorization of a variety of information items available online in this work using Artificial Intelligence principles. For this project, we employed Machine Learning and Natural Language Processing, and we wanted to give users the ability to classify material as false or true, as well as validate the legitimacy of the website that published it. Automated classification of a text article as misinformation or disinformation is a challenging task. Even an expert in a particular domain has to explore multiple aspects before giving a verdict on the truthfulness of an article. In this work, we propose to use machine learning ensemble approach for automated classification of news articles.

In this project, textual properties that can be used to distinguish fake contents from real. By using those properties, we train a combination of different machine learning algorithms using various ensemble methods and evaluate their performance on 4 real world datasets. Experimental evaluation confirms the superior performance of our proposed ensemble learner approach in comparison to individual learners.

We will also use Gradient Booster, SVM, Random Forest, Decision Trees, Logistic Regression, K-Nearest Neighbour Classifier, and ADA boost are some of the Ensemble and boosting Techniques.

Guide Remarks: *Good work done, proceed.*   Guide Signature: *[signature] 29/12/22*