**ABSTRACT:**

Online services like e-com are becoming extremely popular day by day. One of them is online food delivery services, where people usually order various foods of their choices through online and sometimes people give reviews based on that food. Reviews and comments play an important role in determining consumer satisfaction with food distribution services. In real time, fake reviews may mislead the consumer and will even cause financial losses to food chains. Therefore, it is necessary to analyze and filter such fake reviews.

In recent times, many Deep-Learning techniques have been widely used to classify texts of raw ambiguous data. However, most existing methods have lower accuracy in detecting fake reviews due to they just use single features and lack of labelled experimental data. In this Scenario, This project proposes a novel approach to identify fake reviews using Fuzzy based Deep-Learning techniques like CNN and LSTM models where texts are analyzed to assign a probability for the genuine review as having a positive, neutral or negative sentiment and up to their degree of belongingness. To test the efficiency of this proposed method, the data considered for this experiment are the collection of 1600 Amazon food reviews from the Kaggle datasets repository on restaurants about food, taste, service, and delivery partner behaviours.

**Existing system:**

However there have been several researches in field of sentiment analysis. But existing research have provided limited scope. Moreover the performance factor during sentiment analysis is ignored.

Sentiment classification aims to determine the overall intention of a written text which can be of admiration or criticism type.

**Proposed system:**

Sentiment analysis and classification is a computational study which attempts to address this problem by extracting subjective information from the given texts in natural language, such as opinions and sentiments. Different approaches have used to tackle this problem from natural language processing, text analysis, computational linguistics, and biometrics. In recent years, Machine learning methods have got popular in the semantic and review analysis for their simplicity and accuracy.

**HARDWARE REQUIREMENTS:**

System : Pentium i3/i5.

Hard Disk : 500 GB.

Monitor : 15’’ LED

Input Devices : Keyboard, Mouse

Ram : 4 GB

**SOFTWARE REQUIREMENTS:**

Operating system : Windows 8/10.

Coding Language : Python