**MA697 – SEMINAR**

**Topic: SENTIMENT ANALYSIS WITH NAÏVE BAYES**

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**SYNOPSIS**

Sentiment analysis is the use of [Natural Language Processing (NLP)](https://monkeylearn.com/natural-language-processing/), [machine learning](https://monkeylearn.com/machine-learning/), and other [data analysis](https://monkeylearn.com/data-analysis/) techniques to analyse and derive objective quantitative results from raw text. It is widely used in social media monitoring, market research etc. The analysis aims to categorise the sentiments of any given document from a corpus as positive/negative.

In this seminar, I aim to present a detailed analysis of the mathematics involved in the backend of the algorithm of the model such as **Bayes Theorem** from Probability Theory. I shall also elucidate the effect of **Log likelihood** and **Laplacian smoothing** in enhancing the analysis.

* Introduction to Sentiment Analysis
* Bayes Theorem
* Assumptions
* Derivation of Analysis
* Training the model
* Optimising the model
* Implementation of the Model