College   :   AHMEDABAD INSTITUTE OF TECHNOLOGY, GOTA, AHMEDABAD

Department   :   Computer Engineering

Discipline   :   BE

Semester   :   Semester 8

Project Name   :   Sentiment Analysis

Team ID   :   125083

Form 1 – APPLICATION FOR GRANT OF PATENT

Applicants :

Sr. No	Name	Nationality	Address	Mobile No.	Email Id
1	Sahani Ravikumar Ramsajivan	Indian	Computer Engineering , AHMEDABAD INSTITUTE OF TECHNOLOGY, GOTA, AHMEDABAD , Gujarat Technologycal University.	7405558622	rsahani486@gmail.com
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Inventors :

Sr. No	Name	Nationality	Address	Mobile No.	Email Id
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		INSTITUTE OF TECHNOLOGY, GOTA, AHMEDABAD , Gujarat Technologycal University.		

I/We, the applicant(s) hereby declare(s) that:

Following are the attachments with the applications :

Form 2 - PROVISIONAL/COMPLETE SPECIFICATION

1 . Title of the project/invention :
Sentiment Analysis

2. Preamble to the description :
Provisional

3. Description
a) Field of Project / Invention / Application :
Computer Engineering, Machine Learning

b) Prior Art / Background of the Project / Invention :
It can help revitalize a business' brand.
Companies can quantify people's perception about their products or services, marketing strategies and their customer experience.
When used right, it can help companies develop engaging marketing strategies to improve people's perception about their brands.

c) Summary of the Project / Invention :

Sentiment analysis in the domain of micro-blogging is a relatively new research topic so there is still a lot of room for further research in this area. Decent amount of related prior work has been done on sentiment analysis of user reviews , documents, web blogs/articles and general phrase level sentiment analysis . These differ from twitter mainly because of the limit of 140 characters per tweet which forces the user to express opinion compressed in very short text. The best results reached in sentiment classification use supervised learning techniques such as Naive Bayes and Support Vector Machines, but the manual labelling required for the supervised approach is very expensive. Some work has been done on unsupervised and semi-supervised approaches, and there is a lot of room of improvement.

d) Objects of Project / Invention :
The objectives of this project are:
• To implement an algorithm for automatic classification of text into positive
and negative.
• Sentiment Analysis to determine the attitude of the mass is positive,
negative or neutral towards the subject of interest.
• Graphical representation of the sentiment in form of Pie-Chart and Scatter Plot.
• Real time data analysis makes it possible for business organizations to keep track
of their services and generates opportunities to promote, advertise and improve from time to

time. Through comprehensive analysis, businesses gain valuable insights towards their customers.

• It can provide a competitive advantage- A trove of business opportunities and product possibilities.

• Gives predictions of consumer trends so companies can develop strategies to gain an advantage.

• It can help revitalize a business' brand. Companies can quantify people's perception about their products or services, marketing strategies and their customer experience. When used right, it can help companies develop engaging marketing strategies to improve people's perception about their brands.

• It can help enhance customer experience towards brands and business.

e) Drawings :

f) Description of Project / Invention : (full detail of project) :

The algorithm proposed works on Twitter Data, primarily it collects the tweets and then study it with the help of different statistical computing procedures.

In the age of artificial intelligence and machine learning, competition is between best and best. For that sentiment of market is very important and sentiment of market is what consumer think of certain product.

The scope of the project is to provide a user friendly web based product that extracts people's sentiment feelings toward certain services, products, organizations, political or non-political topics and any influential people on social media. In this project phase which aims at developing a filed prototype, emphasis will be put on Arabic tweets from Twitter in the political domain.

The project aims to:

• Provide an accurate sentiment analysis results.

• Achieve a wide range of users in Egypt and the MENA region.

• Support Arabic Egyptian dialect in the first run and English will be considered later.

• Smooth, fast, efficient, reliable and easy to use web-based tool.

• Providing a user friendly menu and good entertainment visualization capabilities.

• Having a plenty of options in term of filtering and viewing information according to user's needs.

g) Examples :

h) Claims (Not required for Provisional Application) / Unique Features of Project

• It can be useful to business for analysing how to market product and what is the sentiment of people, how they will respond to product. It can be useful for predicting the tweets for a certain group of people.

• It can provide a competitive advantage for business opportunities and product possibilities.

4. Claims

5. Date and signature

6. Abstract of the project / invention :

Sentiment Analysis is contextual mining of text which identifies and extracts subjective information in source material, and helping a business to understand the social sentiment of their brand, product or service while monitoring online conversations.

Inorder to gain control over market, it is essential to understand market condition especially during covid-19 situation. For that sentiment of market is very important and sentiment of market is what consumer think of certain product.

Sentiment analysis is the interpretation and classification of emotions (positive, negative and neutral) within text data using text analysis techniques. Sentiment analysis tools allow businesses to identify customer sentiment toward products, brands or services in online feedback. The algorithm proposed works on Twitter Data, primarily it collects the tweets and then study it with the help of different statistical computing procedures.

Form 3 – STATEMENT AND UNDERTAKING UNDER SECTION 8

Name of the applicant(s) :	I/We, Sahani Ravikumar Ramsajivan ,Patel Tirth Pravinbhai
	Hereby declare :
Name,Address and Nationality of the joint applicant :	(i) that I/We have not made any application for the same/substantially the same victim invention outside India.
	(ii) that the rights in the application(s) has/have been assigned to

Name of the Country	Date of Application	Application Number	Status of the Application	Date of Publication	Date of Grant
N/A	N/A	N/A	N/A	N/A	N/A

(iii)That I/We undertake that upto the date of grant of the patent by the Controller, I/We would keep him informed in writing the details regarding corresponding applications for patents filed outside India within three months from the date of filing of such application.

Dated this 30 day of April 2021

To be signed by the applicant or his authorised registered patent agent :	Signature.................
Name of the Natural Person who has signed :	Sahani Ravikumar Ramsajivan ,Patel Tirth Pravinbhai

To,
The Controller of Patents,
The Patent Office,
At Mumbai