**BE : Project Abstract 24 July 2017**

**Group Number:** ***23***

**Priority : 1**

**Project Title : Automated Essay Grading System**

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**Abstract of Project :**

*This project aims to build an Automated Essay Grading System using NLP techniques. A data set is acquired from kaggle.com and a neural network grading engine will be used to grade the essays. A feedback could be generated which will help students improve. It is a challenging and interesting project based on machine learning and can be used to make quality education more accessible. The predictions would closely match human analysis. The grading system model will be trained using word features and essay statistics from the various essays procured from the data set from kaggle.*

**a) Motivation*:*** *The main motivation behind this project is to make quality education easily accessible. Increased adaptation in schools and colleges will result in the reduction of effort by the faculty and ensure faster grading of subjective matter. Detailed feedback will help students improve on a better scale. The system can also be implemented online on education portals for easier grading of subjective question answers and essay-type questions. The model can be further improved using complex features.*

**b) Problem Statement**: *Current systems in place are not capable enough to assess essay-type or subjective answers to questions, relying on the more common multiple choice type question-answer method to assess. However, these multiple choice questions not always display the aptitude of students, especially in languages. Hence, an automated essay grading system is created in order to measure performance in subjective matter.*

**c) Approach:** *For this problem, we use NLP techniques and a Neural network grading engine. The NLP techniques will be implemented using the Natural Language Toolkit(NLTK) libraries and text mining will be used for most NLP tasks.*

**Reference papers*:*** *A hybrid scheme for Automated Essay Grading System based on LVQ and NLP techniques by Abdulaziz Shehab, Mohamed Elhoseny and Aboul Ella Hassanien.*