## **Assignment 4**

Advanced Machine Learning (CS566)

Department of CSE, IIT Patna

(Read all the instructions carefully and adhere to them.)

**Date**: 10-May-2020 **Deadline**:- 17-May-2020

## Instructions:

- 1. Markings will be based on the correctness and soundness of the outputs.
- 2. Marks will be deducted in case of plagiarism.
- 3. Proper indentation and appropriate comments (if necessary) are mandatory.
- 4. You should zip all the required files and name the zip file as:

roll\_no\_of\_all\_group\_members.zip, eg. 1501cs11\_1201cs03\_1621cs05.zip.

5. Upload your assignment (the zip file) in the following link:

https://www.dropbox.com/request/cw5Rr8ok7NJ9KJC7vyhO

## For any queries regarding this assignment contact:

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**Problem Statement:** Given a message (tweet) and classify the sentiment of the message as a positive, a negative, or a neutral.

**Dataset:** Download the dataset for Sentiment Classification from here <a href="https://drive.google.com/drive/folders/1dL7bzgtKpKbvN7TLqIxa\_st2fPEF-p84?usp=sharing">https://drive.google.com/drive/folders/1dL7bzgtKpKbvN7TLqIxa\_st2fPEF-p84?usp=sharing</a>

**Methods: Auto-encoder** 

**Evaluation Metrics:** Classify the dataset for Sentiment Classification and evaluate the following metrics:

- 1. Accuracy
- 2. F-score
- 3. Precision and recall
- 4. Confusion matrix