**BCSE IV DL practice assignment**

Implement a convolutional neural network model for text classification where the input is tokenized as a sequence of characters and a character is represented using one-hot encoding. Use Keras platform for implementation.

Follow the following guidelines for implementing the model.

(1) Split the data into 80% training and 20% testing set.

(2) Experimentally decide

a) number of CNN layers required

b) Which optimizers is the best for this dataset? Adam or RMSprop

c) Number of filters (kernels) at each layer and filter size

d) pooling size of the pooling layer added after each CNN layer

e) Number of epochs

f) dropout

d) batch size

**Guidelines for writing a report.**

Write a report that must include:

(1) Description of the datasets used ( classwise distribution, imbalance ratio)

(2) Procedure for input representation

(3) The block diagram of the model architecture

(4) Model summary

(5) The best values of the above-mentioned hyperparameters that you set to.

(4) Results in terms of Accuracy, Precision, Recall and F-measure

**Submission guidelines:**

(1) Each student must submit a softcopy of the report along with code (.py file) to the email: kamal.sarkar@jadavpuruniversity.com

(2) Each student must submit a signed hardcopy of the report to my office ( it must be submitted).

140 characters

a: (00000000000000000000000000000...1)

b: (0000000000000000000000000000000010)