

# (B.TECH) Semester-VII AY 2023-24

**DL Lab Assignment No. 09**

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| **Student Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** | **PRN No.: \_\_\_\_\_\_\_\_\_\_\_\_** |
| **Date: (Perform) \_\_\_\_\_ & (Submitted)\_\_\_\_\_\_** | **Faculty:** |

**Problem Statement:** Implement a prediction model using Deep Learning method on time series data.

**Objectives:**

1. To understand and implement the Pre-trained architecture like RNN, LSTM etc.

**Theory:** (describe the following)

* + Need of Transfer learning.
  + List different deep learning pretrained Architectures available for sequential data.
  + Description about the pretrained architecture used and time series Dataset Used.

# Operations to be performed:

1. Import the required Python libraries and dataset.
2. Normalizing dataset.
3. Identifying the pretrained model to be used.
4. As per the need, fine tune the pretrained architecture.
5. Train the model with training dataset.
6. Predict the model with testing dataset.
7. Model performance visualization in terms of accuracy and loss.

# Program code: (paste your program code)

**Output: (paste output screen & graphs plotted)**

# FAQs:

* 1. Explain LSTM model?
  2. Explain time series data analysis?

# Conclusion:

The architecture of pre trained model were studied and the implementation of prediction model on time series data performed successfully.