# NNDL Lab

## Lab Experiments/Work books

- TAs will update the helper workbook
- All have to submit the completed workbook and ipynb in Moodle before evaluation.
- Python demo: <u>installation</u>, <u>video</u>, <u>workbook</u>
- Experiments:
  - Realisation of Logic Gates and Linear Regression Equation
  - Multi Class Classification Using Perceptron
  - Associative Networks
  - Multi Layered Neural Network and Backpropagation
  - Convolutional Neural Networks
  - Recurrent Neural Networks
  - Image Classification using Convolutional Neural Networks
  - GAN
  - Autoencoders
  - Transformers
  - Restricted Boltzmann Machine

#### **Evaluation**

- Initial document on title, objectives, hypothesis and experimental description (25%).
- Programming demo (25%)
- Experimental results tabulation and discussion report (25%)
- Endsem viva voice exam (25%)

#### In lab evaluation

- Lab report (includes code, report should be self explanatory): <u>link</u>
- In lab evaluation
  - Should summarize in 5-6 minutes
  - o 3-4 minutes question answer
  - Grading:<u>link</u>
    - 10: along with the helper script if something extraordinary is there, and able to point out and convince the same to the evaluator during the evaluation time.
    - 9: If all the component is done and able to provide satisfactory explanation
    - 8,7,6,5: according to the report and degree of explanation
    - Delay submit: penalty of 1 point/week (with appropriate reason, else will be allotted zero)

### Final Viva

- Need to summarize the whole lab in 2-3 minutes (all experiments).
- One/ two experiments may be asked from the penalist to explain.
- Some questions.

## Thank you

(Best of Luck, hope will enjoy the lab)