

Course Project - Deep Learning – Fall 2025

[1] Requirements:

Key frame detection using deep Learning Techniques.

Input: 30 Second colored Video (picked from the internet)

Output: detected key frames

- You may try two deep learning techniques.
- Please mention the dataset used to train both models
- Discuss the results and Compare between the output of the two models
- Deep analysis of the problem and proposed solutions is a must.
- Models should be depicted as block diagrams

[2] Project guideline

- Projects are on groups (3 students ONLY - No individuals)
- Use any programming languages (Python, Flask , Django, ...etc)

Latest Deadline is Friday 21 Dec Mid night.

Project Code, Report and Presentation should be submitted before the deadline.

Project Report file is in pdf format. it should contain the following sections:

- Personal Info (Names, IDs , Supervisor, Project title,...)
- **Problem description**

- Full **analysis** of the problem
- **Samples** picked from the videos frames
- **Models Designs**, with Diagrams.
- **Explain** each model , how does it work. Theory of operation
- **Analysis and Discussion** of Models output (this is very important)
- Sample results
- Explain **how to enhance** the model (new Ideas)

[3] Evaluation will be based on:

- Project Report (the pdf)
- System Design
- Results and discussions
- Requirements Fulfillment (check list of requirements)
- Code Review Grade
- Project Oral Presentation

Discussion dates will be defined by TAs.