Computer Vision Workshop Content

1. Introduction to Video Analytics:

- Definition and scope of video analytics.
- Importance and growth of video data in today's world.
- Differences between image and video analytics.

2. Applications and Use Cases:

- Security and surveillance.
- Retail analytics (e.g., customer footfall, shelf analysis).
- Traffic and urban planning.
- Healthcare (e.g., patient monitoring, surgical assistance).
- Sports analytics.

3. Basics of AI for Video:

- Quick recap of AI and machine learning concepts.
- Regression vs Classification
- Machine learning primer
- ***Assessment to build a classification model using supervised ML algorithm***
- Introduction to Deep learning and Deep learning primer
- How CNN works with Images
- ***Implementation of CNN Model to classify an image.***

Lunch Break

4. Key Techniques in Video Analytics:

- Introduction to computer vision.
- Differences and challenges in handling videos compared to static images.
- What is video data?
- basic operations on videos
- Converting between video formats
- Pulling metadata from video file.
- How to open a video file and extract images using cv2 (openCV).
- Adding annotations to video frames.
- Saving edited video.
- ***Handson using opencv to analyse a video***
- Summary
- ***Quiz***