**Weekly Report:**

**Week 1 Given Task:**

Read this paper and also following page:

1. https://www.geeksforgeeks.org/opencv-real-time-road-lane-detection/

2. https://towardsdatascience.com/advanced-lane-detection-for-autonomous-vehicles-using-computer-vision-techniques-f229e4245e41

3. [https://medium.com/analytics-vidhya/lane-detection-for-a-sel f-driving-car-using-opencv-e2aa95105b89](https://medium.com/analytics-vidhya/lane-detection-for-a-sel%20f-driving-car-using-opencv-e2aa95105b89)

**Week 1 Progress:**

Topics covered:

1. Research paper by Malaysian University "Real Time Lane Detection for Autonomous Vehicles".

2. Open CV code for basic lane detection in python.

3. Research paper in "Advanced Lane Detection for Autonomous Vehicles using Computer Vision techniques".

4. Gone through OpenCV code for Techniques required for edge detection such as Canny Edge detection and Hough line transformation.

**Week 2 Given Task:**

Watch the video, run the code and observe how the lane detection model works.

**Week 2 Progress:**

 I and my teammate have worked with the following code: [Lane\_Detection\_in\_AVs](https://drive.google.com/file/d/1viofvKQDQ7cDaa3UwtgYGliwcG7mr3bM/view?usp=sharing" \t "_blank)  and also have written a summary over the following code. providing the attachment below in a single google drive link.

**Week 3 Given Task:**

Please go to this link and find suitable paper (2022, 2023) to implement.

<https://github.com/amusi/awesome-lane-detection>

**Week 3 Progress:**

Have gone through the papers and written the summary from these papers (Uploaded all the docs in a Google drive)

1. [BEV-LaneDet: a Simple and Effective 3D Lane Detection Baseline](https://arxiv.org/abs/2210.06006)
2. [Repainting and Imitating Learning for Lane Detection](https://arxiv.org/abs/2210.05097)

**Week 4 Given Task:**

Reproduce the results as given in the following link:

<https://github.com/KrishArul26/Autonomous-Vehicle-Running-with-Line-Navigation-and-Object-Detection-Using-OpenCV-and-AI-Techniques->

For help read in the following page:

<https://medium.com/analytics-vidhya/lane-detection-for-a-self-driving-car-using-opencv-e2aa95105b89>

**Week 4 Progress:**

Edited and executed the python codes from the given Reference for Image lane detection and video lane detection using Hough line Transformation algorithm. (Codes and Outputs are uploaded in the google drive Folder)

**Week 5 Given Task:**

Develop the code for Lane detection in AV’s using

**Week 5 Progress:**

Developed our own code for detection of Lanes in AV’S in both Images and Videos using HSV and Hough Line Transformation.