

# Weekly Report-7

CSE-541 (Computer Vision)

ProjectNo\_2

GroupNo\_5



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## Project Title

“Road Markings Detection and Road Measurement in Aerial Imagery”

Date of Submission: 06-04-2024

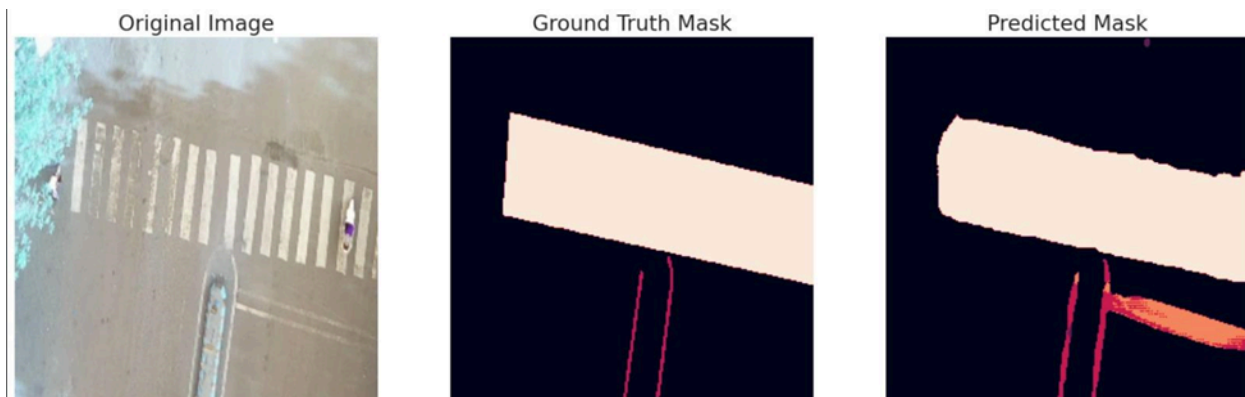
## Group Details:

Enrolment No.	AU2140001	AU2140017	AU2140032	AU2140149
Student Name	Adnan Kadiwala	Vandit Shah	Dhruv Hingu	Het Patel

## Progress:

Until now we were able to perform binary mask classification using deep learning model U-Net, in week 7 we were able to perform **multiclass mask classification** and here are the results which we achieved.

## Results:



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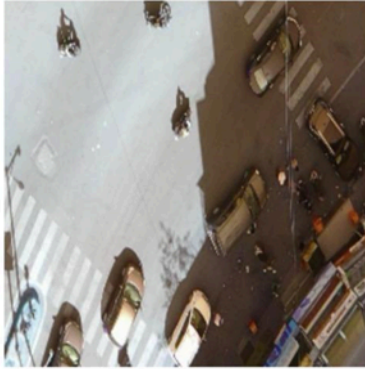
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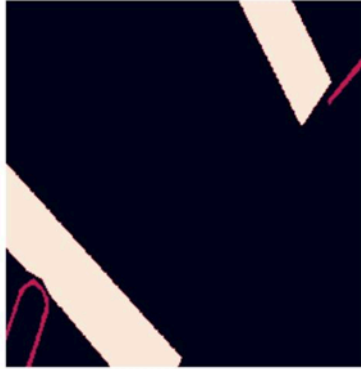


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Original Image



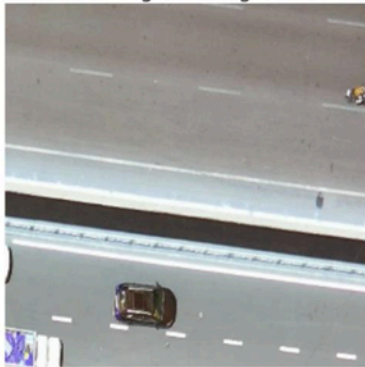
Ground Truth Mask



Predicted Mask



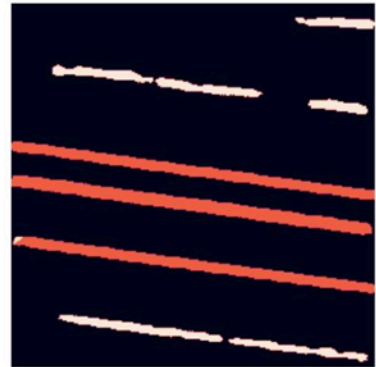
Original Image








Ground Truth Mask



Predicted Mask



Color	Label
	Zebra Crossing
	Lane Marking
	Lane Separator
	Divider
	Traffic Sign

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Above are the labels we used for multiclass mask classification.

### Next steps:

- Next we are working on pixel to cm mapping and we will try to implement it on the images provided to us by yagnik sir.

### References :

- Guan, H., Lei, X., Yu, Y., Zhao, H., Peng, D., Marcato, J., & Li, J. (2022). Road marking xtraction in UAV imagery using attentive capsule feature pyramid network. International Journal of Applied Earth Observation and Geoinformation, 107, 102677. <https://doi.org/10.1016/j.jag.2022.102677>