

# Evaluating Performance of Indian Road Marking Detection Models

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**Team: CV PROJECT**

**WEEK NUMBER: 5**

## **A. Work Completed**

- Continued training and evaluation of **DeepLabV3+** with ResNet backbone for road marking segmentation.
- Ensured correct pairing of input images and segmentation masks using the Indian road drone dataset.
- Used **Cross Entropy Loss** and **Dice Loss** for improved segmentation performance.
- Visualized model predictions and verified accuracy using sample masks.
- Surveyed additional models for road marking segmentation:
  - U-Net++
  - HRNet
  - Fast-SCNN
  - ENet
  - SegFormer
- Verified reproducibility and pre-trained weights availability for DeepLabV3+, U-Net++, and SegFormer.

## **B. Upcoming Tasks**

- Evaluate model performance using:
  - Mean IoU

- Pixel Accuracy
  - Precision and Recall
- Compare DeepLabV3+ with SegFormer and U-Net++ on the same dataset.
- Apply post-processing techniques to clean and refine predicted masks.
- Finalize documentation and presentation for project submission.