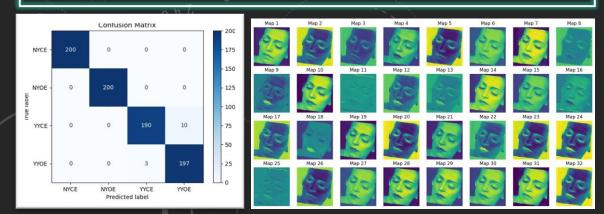
## FATIGUE DETECTION USING EFFICIENT NET V2

### **OBJECTIVE:**

Develop a machine learning and deep learning-based system to detect drowsiness and fatigue. Utilized Convolutional Neural Networks to identify facial cues indicating drowsiness. Preprocess a dataset of 4000 images, train the CNN model, and rigorously validate its real time performance. Evaluate its effectiveness in enhancing safety and well being.

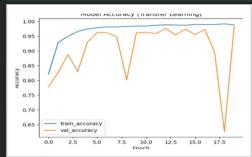
#### Efficient NetV2 Custom ARCHITECTURE Dataset (RGB images): eves closed while Training fine yawning(YYCE), eyes open tuned Resizing images to while yawning(YYOE), eyes **Data Augmentation** EfficientNetV2 (244,244)open without yawning(NYOE). B0 with Dataset and eyes closed without yawning(NYCE) EfficientNetV2 GlobalAverage B0 pretrained Base Model **Batch Normalization** Dropout Pooling2D model on **ImageNet** dataset Prediction of Fatigue Fatigue Detection Model from testing data



#### **AIM FROM THIS PROJECT:**

- Accurate Drowsiness Detection
- Real-time Monitoring Capability
- Improved Safety and Well-being
- · Scalability and Adaptability

### **Accuracy Achieved 98%**



# PREDICTIONS 35 36/5tep J/1









### DATASET USED







## OUR CONTRIBUTERS

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