

## Table of Contents

Mount drive if you are working on Google Colab else skip this cell .....	2
Segmentations Data set .....	2
Run .....	2
Requirements.....	2
Libraries.....	2
Training the model.....	3
Run .....	3
Requirements.....	3
Libraries.....	3

Mount drive if you are working on Google Colab else skip this cell

```
from google.colab import drive  
drive.mount('/content/drive')
```

You would need to upload dataset on google drive

## Segmentations Data set

Run

- File= Extracted\_features.ipynb
- Change the working directory where the dataset is placed, within inverted commas

```
import os  
os.chdir('/content/drive/MyDrive/daugman') # main working directory
```

- Folder name of the dataset folder within inverted commas

```
base_path='MMU-Iris-Database'
```

- Segmented pictures saving folder within in inverted commas with forward slash / at the end of the name.

```
dir_='segmented/'
```

- Run All other cells It will create a folder name segmented or you decided with segmented pictures.

## Requirements

Files “Duagman.py” and “Duagman\_visuail\_explanation.py” should be in the working directory.

## Libraries

- matplotlib
- tqdm
- cv2 (OpenCV)
- numpy
- random
- os
- Itertools
- typing
- keras

## Training the model

### Run

- File= train.ipynb
- Change the working directory where the dataset is placed, within inverted commas

```
import os  
os.chdir('/content/drive/MyDrive/daugman/project') # main working directory
```

- Path for the segmented dataset with forward slash with in it.

```
train_dir='segmented/' # path of the training set
```

- Set model name with extension 'h5' as format below. It will save model with same name.

```
model_name='best_model.h5'
```

- Run other all cells It will save model everytime when validation loss would be detected lower than current in training mode. It will overwrite the model.

## Requirements

### Libraries

- tensorflow
- keras
- matplotlib
- numpy
- sklearn