**HELMET-DETECTION**

To monitor whether the two-wheeler riders wears helmet while driving and to fine a particular amount once they are seen violating the rule by riding without helmet.

**INTRODUCTION**

This work tries to differntiate the helmet users with the non-helmet riders using OPENCV library which achieves 70.89% mAP with the input size 600x550.In addition,we have also tried to capture the number plate of the violator and to allot them with some fine amount.

**To run the project:**

1.Install the following packages:

. Tensorflow

. Keras

. Opencv

. imutils

. numpy

. time

. h5py

2. Store the required number of images needed to detect helmet either in google drive or in local memory.

3. Zip them into a single file and allot a particular location for it.

4. Train them using CNN either in googlecolab or in separate python file after unzipping the file.

5. Load them in HDF type file which has been imported as .h5 file.

6. Run the file.

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Video reference------https://youtu.be/KngsPD-A-pU

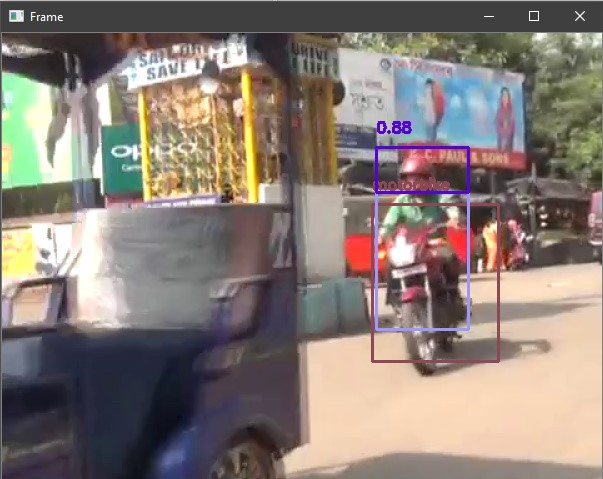
**Guidance:**

Purusothaman

(AI lab incharge,BIT).

<https://bitsathy.ac.in/clubs/ai/>

**Images:**

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