Helmet and Number Plate Detection & Recognition

Prof.Abhay R. Gaidhani, Rutik Shelke, Shubham Ugale, Pratima Jadhav, Sahil Dyandyan
Department of Computer Engineering
Sandip Institute of Technology and Research Centre, Nashik, India

Abstract: *In this study, we proposed a method for automatically identifying bike riders who are using live surveillance videos while wearing a helmet. The suggested method initially uses backdrop removal and object segmentation to identify bike riders in surveillance video. The binary classifier and visual cues are then used to determine whether or not the bike rider is wearing a helmet. We also give a consolidation method for reporting violations, which helps to increase the validity of the suggested method..The paper presents an approach for automatic detection of helmeted and non-helmeted motorcyclists. The YOLO model, an improved version of YOLO for object detection, is used in this approach to detect motorcycle riders in the videos. The proposed model is evaluated on traffic videos, and its results are promising compared to other CNN-based approaches.*

Keywords*:* Helmet, Security System, Vehicle Riders, Number Plate

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