

# Helmet and Number Plate Detection using YoloV8

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**Abstract:** *Motorcyclists failing to wear helmets is one of the main reasons why people die in these kinds of crashes. Traditional approaches to ensuring motorcycle riders wear helmets include traffic police manually monitoring intersections or using CCTV footage to detect riders who are not wearing helmets. These techniques, however, necessitate a great deal of human labor and involvement. This system suggests using CCTV footage to automatically recognize non-helmeted motorcyclists and obtain their license plate information. Initially, the system classifies items in motion as either motorbikes or non-motorcycles. The system determines whether or not classed motorcycle riders are wearing helmets. The device uses an OCR technique to obtain the license plate number if the biker is not wearing a helmet.*

**Keywords:** CCTV footage.