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Helmet Verify : AI Detection System for Safety Check

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Abstract: *In many nations, motorcycles are a common form of transportation. However, riding a motorcycle comes with a great risk when the correct safety equipment is not used. Therefore, wearing a helmet is highly recommended to promote safety while riding a bike. It is vital to build an autonomous helmet detection system that can identify the offenders on motorcycles in order to eliminate this manual dependency. Many riders choose not to wear helmets while riding two-wheelers or only do so when there are traffic police present. The goal of this study is to create a real-time autonomous system utilizing the YOLO deep learning method. A form of CNN called YOLO is suitable for real-time object detection.*

Keywords: CNN-Convolutional Neural Network, R-CNN-Region based CNN, YOLO-You Only Look Once, SVM-Support Vector Machine, IDE-Integrated Development Environment, CCTV-Closed Circuit Television

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