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Salvadora - Detecting handheld mobile phone usage while driving

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Abstract

Distracted driving is a major problem that affect for the road accidents in now adays. Using mobile phone while driving is a major method of distracted driving. Using a handheld mobile phone for calling while driving will distract the driver in various ways. Driver unable to keep concentration on driving, he uses only one hand to control the steering wheel are some problems faced by the driver when driver uses a handheld mobile phone while driving. This research also based on the problem, mobile phone usage of the drivers while driving.

To overcome this problem detecting handheld mobile phone usage of the drivers while driving and create a warning system that warns the driver through car audio system is the way that proposed in this research. Machine learning concepts were used to implement a solution to overcome on this problem. The solution was implemented using two camera inputs. Detecting hand posture from one camera and detecting lip movement ratio from another camera are the two inputs that are used for this system. Hand posture was detected using a pretrained machine learning model and lip movement ratio was detected using a mathematical part.

Key words: Machine Learning**,** Detecting Hand Posture, Detecting Lip Movements, Lip Movement Ratio.

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