

Visual Patterns of Drivers under Different Distracting Conditions

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Abstract: Various research studies have shown that there have been increased cases of fatality involving distracted drivers. The objective of this study was to observe the eye fixations during the time when the driver has been subjected to some distractions during the course of their driving a vehicle. The study used eye tracking devices to locate the positions of the eye of the driver while driving under distracting environment. Two types of distracting measures were used: change in weather conditions, and introduction of loud music. The average age of the participants in the study was 22 years and their average driving experience was 5 years. The participants were divided into two groups, one driving under different weather conditions and the other driving through two different conditions of noise. The analysis of the data collected from the study showed that eye fixations were more scattered within the areas of interest (AOIs) when the participants were subjected to distractions than when they were under normal conditions such as sunny day and quiet environment as compared to rainy day and loud music. Also, time spent by the eye on the wind shield was much longer in sunny conditions and without music.

Keywords: Distractions in Driving, Eye Fixation, Eye-Tracking System