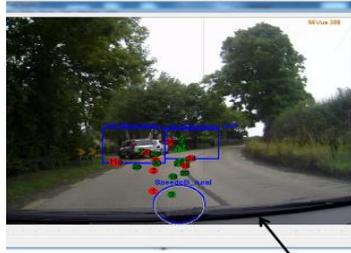


PROJECT PROFILE



Title	Evaluation of Driver Distraction Factors using objective metrics: Investigation of Driver Distraction Factors Using Eye Gaze Measurements
Contractor	Shanmugaraj Madasamy
Contact details	Institute of Technology Blanchardstown SimRG (the Simulation Research Group, www.simrg.org) Institute of Technology Blanchardstown in collaboration with NUI Maynooth
TII Mentor	Des O Connor
Start date	Nov-15
End date	Feb-17
Status	Complete
Type of project	TII Research Project
Project reference	

Description	<p>The work carried out in this project informed and developed the standards (NRA HD17 Road Safety Inspection, NRA HD18 Road Safety Impact Assessment and NRA HD19 Road Safety Audit) as these types of activities and physical environments are capable of being modelled and augmented with rich features for scenario testing/simulation.</p>	 <p>Eye Tracking on a Rural Road-High and Low Attenders</p>
Objectives	<p>To measure the driver response using eye gaze data for Irish road environment.</p> <p>To record a video of different road types with importance given to those roads which cause issues for drivers.</p> <p>To modify the road environment by using computer vision techniques to add advertising materials and installations for experiment purpose.</p> <p>To assess driver behaviour and driver response that causes driver to be distracted.</p> <p>To develop safety protocols for the assessment of proposed new structures on Irish roads.</p>	
Benefits	<p>Driver distraction issues, particularly those related to road safety and planning, are an area of interest to TII. Driver distraction is often understood to be associated with 'in-vehicle' distraction, for example, mobile phone use. However, within a complex road environment it is also important to establish the levels of distraction (external to the vehicle) that a typical driver can cope with, and under different driving conditions, to be able to continue to safely navigate the road. Evidence based, scientific research is needed in this area to help inform national policies around planning and road safety to ensure that the Authority can continue to deliver a safe and efficient road network.</p>	
Outputs	<ol style="list-style-type: none"> 1. Literature review on driver distraction and eye tracking. 2. EyeTribe eye tracker integrated with the driving simulator system. 3. An experiment on assessment of two low-cost eye tracker (i.e.) EyeTribe & Gazepoint GP3 eye tracker was completed. 4. The results and data analysis from the comparison experiment are documented. 5. Preliminary results were presented as poster presentation at Winter School - Eye Tracking conference. 	