Research Program: R2

ITS for Safer Level Crossings

Objective:

This project aims to improve level crossing safety by examining the road vehicle drivers' responses to new Intelligent Transport Systems (ITS) to advance both in-vehicle and road-side warning and protection systems.

Project scope:

This project will use the driving simulator to:

- design in-vehicle and road-based assistive systems on railway crossings;
- evaluate the safety impacts of different assistive systems (human errors, intentional actions, objective and subjective risk assessments);
- evaluate the resulting behavioural changes in different traffic situations; and
- provide recommendations to industry.

Benefits:

The Australasian Railway Association estimated that the industry-wide benefit of deploying ITS interventions is estimated at a 10 percent reduction in collisions. It is envisaged that the identification of low-cost technologies for level crossing protection systems will reduce the occurrence and severity of crashes which would in turn reduce their associated cost and negative impacts on the economy in terms of value of loss of life, lost productivity and delays.

Expected outcomes:

The outcomes of this project will be a scientific assessment of the impacts of ITS based interventions on driver behaviour and recommendations to industry.

Project timeframe:

3 years (January 2010 – December 2012)

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