



New Affordable Level Crossing Protection Systems for: Crossings in Regional Areas, Occupational Crossings in Areas with High Speed Passenger Trains (R3.111)

Background

Railway level crossing crashes are one of the most serious safety issues faced by the rail industry in Australia. There are more than 9,400 public railway level crossings in Australia, of which approximately 2,650 (30%) have 'active' protection, 6,060 have 'passive' protection and the remainder have other control or protection. The major limitation of providing active level crossing protection is the high cost of providing track-circuit-based boom gate systems. Increasing the affordability and cost-effectiveness of level crossing protection will allow a greater number of sites to be protected.

Objective

This project will examine new technology options for level crossings that are cheaper to install and maintain than current systems. Combinations of non-vital technology such as GPS will be considered in conjunction with vital systems and human factor system elements. The project will address the safety vitality issues associated with signalling principles design.

Outcomes

The project will exclude non-starters and avoid replicating existing products already tested in Australia and overseas. The deliverables will be in the form of an evaluation of applicability of candidate systems and recommendation of a prototype for further evaluation.

Benefits

The industry-wide benefits of this project have been estimated at 10 percent reduction in collisions. It should be noted that the real savings are difficult to assess as it is difficult to place an accurate value on the lives potentially saved and property protected from the successful completion of this project.

Project timeframe

1 January 2009 to 31 December 2010

Phone: +61 (7) 3221 2716
Fax: +61 (7) 3221 2768
Address: Floor 23
300 Queen Street
Brisbane Qld 4000
Australia
Email: info@railcrc.net.au
Web: www.railcrc.net.au

Project Chair
Greg Beh
Queensland Rail
Ph: (07) 3235 2518
gregory.beh@qr.com.au

Project Leader
Luis Ferreira
Queensland University of
Technology
Ph: (07) 3138 1542
l.ferreira@qut.edu.au

About the Research
Dr Chris Gourlay
Research Director
Ph: (07) 3412 9597
cgourlay@railcrc.net.au

Adopting our Products
Charlie Robinson
Business Manager
Ph: (07) 3229 9085
crobinson@railcrc.net.au



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