CSI SEMINAR

Thursday 14 August 2014
12.30-1.30pm

ATC 205, 2nd floor, Advanced Technologies Centre
Swinburne University of Technology, Hawthorn campus
Cnr Burwood Rd and John St, Hawthorn

Seminar

12.30-12.40pm  Light lunch and drinks
12.40-12.45pm  Welcome and Introduction

12:45 – 1pm

▶ Anchorage systems in concrete structures strengthened with carbon fiber reinforced polymer composites

Robin Kalfat (Research Fellow, CSI)

The anchorage of fiber-reinforced polymer (FRP) composites when applied to reinforced concrete structures as externally bonded reinforcement is an effective means to achieve higher levels of fiber utilization prior to premature debonding failure. The focus of the present research is to develop and validate experimental and numerical procedures for FRP-to-concrete joints anchored using bidirectional fiber patch anchorages resulting in the establishment of theoretical models and design guidelines for widespread use.

1 – 1.15pm

▶ The effects of heavy vehicle multiple axle configurations on sprayed seal wear

Kym Neaylon (Part-time PhD Candidate – commenced January 2008)

The objective of this research is twofold: 1) do heavy vehicle axle groupings and loadings that cause the same damage to a pavement, cause different damage to a sprayed seal? If so, should the difference be accounted for in the seal design process? 2) The pavement design concept of equivalent standard axles (ESAs) is interconnected with the 4th power law. What is an appropriate load damage exponent for sprayed seal wear?

1.15 – 1.30pm

▶ Decision Support Framework for Job Redesign to Ensure Safety of Elderly Workers Undertaking Manual Handling Works

Azizur Rahman (Full-time PhD Candidate – commenced March 2012)

About two and half million elderly workers in Australia were not willing to retire in 2010-2011 even after the retirement age of 65 years. Their physical capacity declines with aging. A considerable number of claims are coming from them engaged in manual handling works compared to younger workers. Therefore, this research focused on elderly workers of age 60 and above to develop a model for job redesign to ensure safety.

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