**CSI Research Seminar Program**

**DATE**
Thursday, 12 September 2013

**TIME**
12:30-1:30pm

**VENUE**
ATC 205, 2nd floor, ATC Building (corner of Burwood Road and John Street), Hawthorn campus, Swinburne University of Technology

12:30 - 12:40pm
Light lunch and drinks

12:40-12:45
Welcome and Introduction

12:45 - 1:00pm
Dr Morshed Alam (Research Fellow, CSI)
Title: Application of Phase Change materials in Australian Buildings
Abstract: Phase change material stores energy in latent form through phase transition during warm day time and releases the stored heat at cool night time. In this process, it cuts down the amplitude of room temperature fluctuations which results in lower building heating and cooling energy consumption and greenhouse gas emission. In this study, application of phase change materials as a potential pathway of climate change adaptation has been investigated for different Australian cities.

1:00 - 1:15pm
Nahla Alaswadko (PhD candidate – commenced November 2012)
Title: Deterioration Modelling For State Highways of Victoria / Australia
Abstract: One of the primary components of a pavement management system is the method of evaluating the rate of pavement deterioration over time i.e. pavement deterioration models. The aim of this research project is to develop deterioration models for pavement roughness, rutting and cracking for Victoria’s rural arterial network. These models can be incorporated in dTIMS software, recently acquired by VicRoads. Both deterministic and probabilistic modelling approaches will be considered.

1:15 - 1:30pm
Ghaidak Al-Bayati (PhD Candidate – commenced November 2012)
Title: Torsional-Shear Strengthening of Concrete Members Using Near Surface Mounted CFRP Composites and Cement Based Adhesives
Abstract: The aim of the current study is to use NSM with the modified cement-based adhesive and CFRP laminate to strengthen the concrete beams for shear and torsion. To date, twenty one prisms have been casted and tested by the single-lap shear test to provide a good understanding for the bond behavior, and determine the critical bond length of the adhesive. The future work is planned to consist the testing of ten concrete beams to investigate the torsion performance of CFRP strengthened beams.

For more information
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