



CHINA HONG KONG RAILWAY INSTITUTION

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23rd October 2017

November Function: Technical Talk on Safer Railways Using Innovative In-Service Monitoring Technologies for Passenger Networks

Date: Wednesday 15th November 2017

Time: 6:30 pm to 7:30 pm (refreshment starts at 6:00 pm)

Venue: 2/F Auditorium, MTR HQ

Railway networks globally are steadily growing with significant capital investments in infrastructure and modernisation. The railway operators are demanding higher productivity and throughput to meet increasing patronage and changing needs. These coupled with shrinking maintenance windows and tightening of available asset repair budgets necessitate responsive strategies to ensure continued safe operations, service reliability whilst at the same time looking at ways to create greater efficiencies.

The Instrumented Revenue Vehicle (IRV) technology and associated sophisticated automatic data processing system are key technological innovations that integrate into normal railway operations and it is capable of monitoring vehicle – track dynamic responses to improve railway system performance. It is retrofitted to standard wagons used for revenue services. It automatically collects dynamic performance data and identifies high risk track related defects, and the precise locations of the defects, capable of sending remote data that can be analysed in real time. It prompts appropriate operational responses, such as the application of temporary speed restrictions and rescheduling of maintenance activities, thus limiting risk associated with catastrophic consequences such as derailment and any further damage to rail assets. The IRV technology is also used to measure the effectiveness of maintenance activities and to identify track deterioration trends and any irregular operational movements.

As a result of IRV technology, the track conditions and vehicle-track system performance can be remotely and automatically monitored without halting standard revenue producing operations.

This technical presentation will outline the award winning IRV technology, and how the shift from reactive to proactive maintenance and operation using new technological innovations, provides significant benefits to the railway industry around the world as well as in Hong Kong.

This workshop on Safer Railways Using Innovative In-service Monitoring Technologies for Passenger Networks is supported by the Australian Government through the Australia-China Council of the Department of Foreign Affairs and Trade.