



## **CHINA HONG KONG RAILWAY INSTITUTION**

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23<sup>rd</sup> April 2012

### **May Function: Technical Talk on The use of Fibre Bragg Grating Sensors for monitoring of wheel-rail interactions**

**Date: Monday 14<sup>th</sup> May 2012**

**Time: 6:30 pm to 7:30 pm**

**Venue: Theatre, 2/F, Fo Tan Railway House**

The monitoring of wheel-rail interaction is often employed in the condition-based maintenance of railways to detect early abnormalities in the trackworks or running gear of the trains. The use of conventional electromechanical types of accelerometers and strain gauges has many limitations including EMI, power supply, cabling, durability etc. A novel means using Fiber Bragg Grating (FBG) sensors imprinted in the core of optical fiber cables has been developed and extensively tested since 2006. The new device has overcome many of the limitations of the conventional electromechanical sensors and is capable of providing much more information due to its wide bandwidth. It is now used for HSR in China, MTR in Hong Kong and TRA in Taiwan.

Guest Speaker – Ir Dr Lee Kang Kuen, Adjunct Professor, Department of Electrical Engineering, The Hong Kong Polytechnic University

KK worked for the KCRC and MTR Corporation for over 30 years. He took up various senior posts in both the Operating Railway, new Hong Kong and mainland projects before his retirement in 2011. Since then, he has worked full time on academic research on railway technology in the Hong Kong Polytechnic University.

For registration, each participant has to confirm to CHKRI his/her name, employer and contact telephone number. Please provide your membership number and grade at the same time when returning your application by e-mail to [secretary@chkri.hk](mailto:secretary@chkri.hk) on or before **04<sup>th</sup> May 2012**.

Anthony Tong  
Secretary, CHKRI

