



# Technical Seminar

## Development of Environmentally Friendly Pavement Materials and Systems

### 環保道路物料的研究與發展

#### Abstract

Shortage of land for waste disposal has long been a problem in Hong Kong. Recently, the landfill site has projected an alarm signal due to the increasing amount of waste. It exerts a large pressure on the limited land supply and serious impacts on the overall environment. According to the government's view, the remaining land suitable for landfill for dumping waste is becoming scarce. In terms of road pavement engineering, common types of waste that can be recycled and utilized for road construction are such as tyre rubber, reclaimed asphalt, plastic and waste sludge. According to recent research findings, it is believed these materials can be recycled and utilized in a higher degree. Alternative pavement system will also help to offer more sustainable solutions by reducing the usage of traditional pavement materials.

During the seminar, the mechanical performances and the potential usages of the following road construction material / systems will be demonstrated and discussed.

- 1) Reclaimed Asphalt Pavement (RAP) and Asphalt Rubber (AR) pavement materials.
- 2) Pavement system design based on cement stabilized base materials.
- 3) Eco-friendly concrete pavement blocks using waste sludge.

**Date:** 3 April 2018 (Tuesday)

**Time:** 7:00 pm to 8:30 pm

**Venue:** Technological and Higher Education Institute of Hong Kong (THEi), Room LT3, 20A Tsing Yi Road, Tsing Yi Island, N.T., Hong Kong

**\*\*The seminar will be conducted in English\*\***

~ All attendees will receive an attendance certificate for their CPD log ~



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Civil Engineering Society, THEi-SU

For enquiries, please contact:

Dr. Gordon LEUNG at 2176 1478 (CIHT HKR - Technical Talk Convenor)

## About the Speaker

Dr. Gordon Leung is an Assistant Professor of Civil Engineering of the Technological and Higher Education Institute of Hong Kong. His research interests are in the areas of pavement geotechnics, unbound and bituminous materials, pavement management system and accelerated pavement testing. Before joining the academic field ten years ago, he worked with Ove Arup & Partners in Hong Kong. Currently Gordon serves actively in various professional institutions such as he is a committee member of the Chartered Institution of Highways & Transportation - Hong Kong Region, assessor for the HKIE Professional Review and the Secretary General of the Hong Kong Road Research Laboratory.

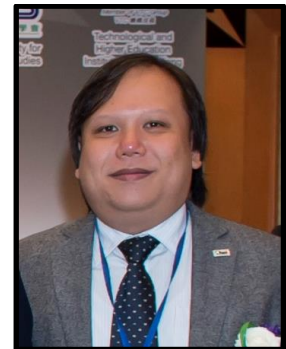
In the past, Gordon played a key role in updating various government documents such as the *General Specifications for Civil Engineering Works* (Sections 9 to 12) and establishing the new *Guidance Notes on Road Markings* (RD/GN 036) for the Highways Department in Hong Kong. He also acted as the independent reviewer for the pavement evaluation works of the Tolo and Fanling Highways widening projects. He recently obtained an RGC Project: "*Study on the Use of High Percentage Reclaimed Asphalt Pavement Materials in Hong Kong*"

Dr. Simon Wong is currently an Associate Professor and the Programme Leader of Civil Engineering at the Technological and Higher Education Institute of Hong Kong (THEi). His main research interests are in the areas of concrete structures, concrete technology, seismic resistance design and analysis of concrete structures and road building material design. He also heads the research committee of the Faculty of Science and Technology.

Before joining THEi, he has been deeply involved in structural and foundation design of various residential and commercial developments in Hong Kong and Macau. Simon last year obtained a RGC Project related to road pavements titled "*Study of the Performance of Asphalt with High-Volume Plastic Waste for Highway Pavement in Hong Kong*".



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