



THE INSTITUTION OF ENGINEERS, MALAYSIA

Bangunan Ingenieur, Lots 60/62, Jalan 52/4, Peti Surat 223, 46720 Petaling Jaya, Selangor Darul Ehsan
Tel: 03-79684001/2 Fax: 03-79577678 E-mail: sec@iem.org.my IEM Homepage: http://www.myiem.org.my

Talk on Design & Construction of Stabilised Subgrades for Malaysian Roads

Organised by Civil and Structural Engineering Technical Division
BEM Approved CPD/ PDP Hours: 2 Ref No: IEM16/HQ/090/T

Date : 7 April 2016, Thursday
Time : 5.30 p.m. – 7.30 p.m.
Venue : Auditorium Tan Sri Prof. Chin Fung Kee, Third Floor, Wisma IEM, PJ
Speaker : Scott Young, B.E. (Civil) Hons.,

SYNOPSIS

The use of stabilisation of pavement materials (sometimes referred to as CIPR for granular materials) has been widely accepted and used across Malaysia since the 1980's. During the last 30 years there have been a number of various publications and technical papers published. JKR have released detailed specifications and design guidelines all incorporating stabilised layers, whether it be subgrade, subbase or base layers.

In 2013 JKR released a revised design guideline titled, 'Manual for the Structural Design of Flexible Pavement' (ATJ 5/85 Pindaan 2013) which promotes the use of mechanistic design modelling techniques. The previous version, 'Manual on Pavement Design' (Arahan Teknik Jalan 5/85) was published in 1985. One of the most significant changes for designers is the minimum properties required for subgrade materials with a design CBR of 12% required pavements with traffic categories of T4 or T5 (>10.0E+06).

This paper explores and compares the two most common methods to achieve a CBR of 12%, being subgrade removal and replacement versus subgrade stabilisation. Elements that will be presented include design, construction and cost. Both new pavements and rehabilitation of existing pavements will be covered. Similarly for lesser trafficked pavements (T1, T2 and T3) which have a minimum design subgrade CBR requirement of 5%, these elements will also be presented.

BIODATA OF SPEAKERS



Scott Young, a Civil Engineer with Honours from the University of Newcastle, NSW Australia began working in Malaysia in January 2013 and is currently in the role of Managing Director for Stabilised Pavements (Malaysia) Sdn Bhd. Scott is a member of REAM and REAAA and was a SIRIM committee member for the successful development of Malaysia's first service based Product Development Criteria for their eco-labelling scheme. Scott previously held the position of Regional Stabilising Manager for Downer EDI Limited based in Sydney, NSW Australia for 11 years, managing their stabilisation contracting business in NSW and SE Queensland. He has been heavily involved in the stabilisation industry for 15 years and during that time held positions of

Director, Vice President and President in Australia's national association AustStab, which provides research, development, education and advice to the pavement recycling industry. His experience covers civil and geotechnical engineering, predominantly in pavements with areas of responsibility including asset management, structural design, performance specified maintenance contracts, asphalt production and laying, spray sealing, pavement rejuvenation and pavement recycling. Scott has delivered numerous presentations at conferences and industry seminars on a variety of pavement stabilisation topics, from design through to construction as well as delivering guest lectures at undergraduate and postgraduate level at the University of New South Wales and University of Technology Sydney.

Ir. Hooi Wing Chuen
Chairman
Civil and Structural Engineering Technical Division, IEM

ANNOUNCEMENTS

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