



One Day Technical Seminar on Airfield Pavement Design and Construction

Date : 21st November 2018 (Wednesday)

Time : 9.00 am – 5.00 pm

Venue: Waterfront Hotel, Kuching, Sarawak

Organizer:

- Ibraco Construction Sdn Bhd
- IEM (Sarawak Branch)

In collaboration with:

- Wirtgen (M) Sdn Bhd
- Jurutera Minsar Consults Sdn Bhd
- Shell Malaysia.

6.5 CPD

(BEM approved hours)
Ref. No.: **DEM18/SWAK/445/C**

Synopsis:

Parameters used in the pavement structure design for road and airfield are different. The challenges in airfield pavement structure design is relatively greater due to the loading impact is much higher. Selection of appropriate design method and assumptions are crucial so that the pavement is able to serve accordingly. The pavement design topic in this seminar elaborates the details.

To transform the design into reality is another subject that will be covered in this seminar. The stringent requirement in the airfield pavement construction is always a challenge. Key parameters such as surface texture, structural strength and pavement profile are used to measure the quality of pavement being laid. Doing it right from the beginning is crucial and this helps to reduce unnecessary redo and also helps to reduce the tendency of premature failure that increases the unnecessary maintenance cost.

The International Roughness Index (IRI) is always used to measure the pavement profile and riding quality. Lately three points averaging sonic sensors namely the Multiplex System has been introduced successfully in Malaysia for this purpose. In addition, the specific features built in the paving equipment such as the electric heated screed, autotest memories function and screed assist function serve as additional features that improve the asphalt pavement quality.

Besides the modern construction equipment, selection of quality pavement materials such as penetration grade 60/70 bitumen is crucial to ensure a durable pavement is being laid. Handling, quality control and assurance of good bitumen is discussed and serve as reference in the construction process.

The topics of discussion in this seminar includes pavement design, construction practices, construction compliance and materials. The selected presenters have relevant experiences that are able to share good practices and discuss challenges that benefit the pavement industry.





Speaker Profile:

1) Ir. Roland Ong K.B.

Ir. Roland Ong is a Civil and Structure Engineer with over 18 years experiences in airports engineering. Ir. Roland is a Senior Associate of Jurutera Minsar Consult Sdn Bhd (Minsar) heading the Airports Division for more than 15 years. Ir. Roland graduated from University of Canterbury, Christchurch New Zealand in Civil Engineering and has Two (2) Professional Certificates from ACI (Airports Council International) for 'ICAO Annex 14' and 'Airport Master Planning'. Prior to working in Malaysia, Ir. Roland has worked in Wellington New Zealand as a Civil Engineer for Two (2) years. Ir. Roland is very passionate in airport related works including planning, design, feasibility studies, airport traffic studies, airport engineering design, airfield pavement design & evaluation, project management and construction management.

Together with Minsar, Ir. Roland's past projects include Airport Layout Planning, Airport Master Planning, Runway, Taxiway Aircraft Parking Apron, Air Force Airfield Facilities Planning and Design, Airport terminal Building Design, Aircraft Hangar Design, Heliport / Heli-stands planning and design, Airfield Pavement Design, Project Planning and Construction Programming. Ir. Roland's involvement in over 17 airport related projects has helped him gained considerable knowledge in airport related design and construction both on new green field and complicated airport upgrading projects. Past airport projects with Minsar include, New Bintulu Airport, Upgrading of Miri Airport, Redevelopment of Kuching International Airport, Redevelopment of Kota Kinabalu International Airport, Upgrading of Malacca Airport and Modernization of Brunei International Airport. Ir. Roland has also carried out many airfield pavement rehabilitation projects including Rehabilitation of Airfield Pavement at Kuching International Airport, Kota Kinabalu International Airport and Brunei International Airport.

Ir. Roland has also been actively involved in International Airport Related Conferences and Seminars, where he has under Minsar become a member of ACI WBP (World Business Partner), participating many training and conference programs to keep himself updated with the latest standards, policies and recommended practices in the airports industry. Ir Roland was one of the key speakers in the '12th World Airfield Congress', held at Kuala Lumpur in December 2015.

2) Ir. Pok Sum Loong.

Ir. Pok Sum Loong is the Managing Director of Wirtgen Malaysia Sdn. Bhd., a subsidiary for The Wirtgen Group since July 2011. The Wirtgen Group is an internationally operating group of companies leading in the construction machinery sector incorporating five product brands namely Wirtgen, Vögele, Hamm, Kleemann and Benninghoven. Wirtgen Group has become a one-stop supplier of leading technologies for the entire road construction cycle starts from processing, mixing, paving, compaction and then the rehabilitation.

Ir. Pok is a Civil Engineer registered with The Board of Engineers, Malaysia. He has a Diploma and Degree of Civil Engineering from UTM and Master Degree of Highway and Transportation from UPM. He is the Corporate Member of The Institution of Engineers, Malaysia (IEM) and has worked in the pavement industry for nearly 25 years in Malaysia, China and as well as the global environment.

Besides the related academic qualification, Ir. Pok was actively participated in pavement and material technical committees and contributed vastly in the Malaysia pavement industry. He was a committee member for revision of Malaysia Standard MS 124 and MS 512, committee member for drafting of REAM guideline REAM-SP 3/2007 and Committee member for Shell Bitumen Technical Committee East.





3) Mr. Bjorn Westphal.

Mr. Bjorn Westphal was born on 21.02.1975, he studied Civil Engineering and specialised in asphalt pavement construction. He involved in pavement construction management, tendering process and as well as costing and claiming. He was also a hands-on professional that specialised in road profiling and level control in pavement construction in specific.

Mr. Westphal have vast experience in pavement construction, he has involved in many important pavement projects such as many of the worldwide high-profile international airport such as Singapore International Airport, Bremen Airport and Mannheim Airport. He was also involved in Austin Texas F-1 circuit, and many other highway construction projects.

Since 07/2007 Mr. Westphal has been employed by the Joseph Vogele AG and working as a Service Technician and Trainer. With the accumulated experiences gained, his capability is recognised and is currently the Product Manager in Joseph Vogele AG, Germany.

4) Dr. Vincent Guwe.

Dr. Vincent Guwe is a Senior Application Specialist from the Shell Specialities Technology team with 20 years of experience in the pavement industry. In 1998, after graduating with an honours degree in Civil Engineering from the National University of Singapore (NUS), he was employed as a research engineer in NUS while concurrently working towards his PhD in pavement engineering. Subsequently, he worked as a pavement engineer first in Samwoh Asphalt Premix and then Hanson Building Materials, two of the largest asphalt suppliers and specialist paving contractors in Singapore.

Dr. Guwe joined Shell Global Solutions in 2007 as a project leader on asphalt mixture and pavement design, working in Malaysia and France to provide technical services and carry out R&D projects such as PMB development for Singapore's Formula 1 street circuit, heavy-duty airport pavements and knowledge transfer of high stiffness asphalt technology from France to South Africa. In 2009 he moved to India to be a Product Researcher at the Shell Technology Centre in Bangalore working on pavement solutions projects. From 2012 to 2017, he was the Manager of Shell's Bitumen Solution Centre in Bangkok, leading his team to provide technical service for the Asia-Pacific and Middle East regions. Notable projects include Dubai Airport, Rubberised Asphalt in Thailand and various Warm Mix Asphalt (WMA) projects in the region. He is currently based in Kuala Lumpur to provide frontline technical support to Shell Bitumen's customers in Singapore, Malaysia & Hong Kong, such as for Changi Airport, Sepang Racetrack, HKIA and the Hong Kong - Zhu Hai - Macau Bridge.

Dr. Guwe has authored or co-authored more than 15 technical papers published in international journals and conferences to date. In 2015, he authored a chapter on the Laboratory Testing of Asphalt in the latest 6th edition of the internationally-renowned Shell Bitumen Handbook.





Programme

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|-----------------|---|---------------------|
| 8.30am-9.00am | Registration | |
| 9.00am-9.10am | Opening speech by Ibraco Construction Sdn Bhd | Mr. Felix Su |
| 9.10am-9.20am | Welcoming speech by IEM Sarawak Branch | IEM Sarawak Branch |
| 9.20am-9.30am | Momento exchange in between Ibraco and IEM Sarawak Branch | |
| 9.30am-10.30am | Airfield pavement design and consideration | Ir. Roland Ong |
| 10.30am-10.45am | Tea break | |
| 10.45am-11.45pm | Quality paving by using latest technology and methodology that comply to the requirements | Ir. Pok S.L. |
| 11.45am-12.00pm | Quality paving, a case study by using a Three-Point Sonic Sensors | Ir. Pok S.L. |
| 12.00pm-12.45pm | Sharing a good practice in the construction of an airfield pavement | Mr. Bjorn Westphalt |
| 12.45pm-1.45pm | Lunch break | |
| 1.45pm-2.45pm | Asphalt compaction technology and process | Ir. Pok SL |
| 2.45pm-3.15pm | Asphalt compaction and the case study | Ir. Pok SL |
| 3.15pm-3.30pm | Coffee break | |
| 3.30pm-4.30pm | Bitumen solutions for airfield pavement | Dr. Vincent Guwe |
| 4.30pm-4.45pm | Q&A | |
| 4.45pm-4.55pm | Presentation of certificates to the presenters | IEM Sarawak Branch |
| 4.55pm-5.00pm | Closing remark by the Organizing Chairman | Mr. Felix Su |
| 5.00pm | Event closing and distribution of attendance certificates | |





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REGISTRATION

FEES

| | |
|-----------------------|-------------------------|
| IEM Member | RM100.00 per pax |
| Non IEM Member | RM150.00 per pax |

6.5 CPD
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*Limit to the first **THIRTY (30)** registered pax only.

Closing Date for Registration & Payment: THURSDAY, 15TH NOVEMBER 2018 (not later than 5:00PM) or to the first paid THIRTY (30) pax otherwise whichever come first).

To: Secretariat
 The Institution of Engineers Malaysia (Sarawak Branch)
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 93100 Kuching
 Tel: (082) 428 506 Facsimile: (082) 243 718 E-mail: iemsarawak@gmail.com Website: www.iemsarawak.org

| No. | Name(s) in CAPITALS | Email Address | IEM No. | Fees (RM) |
|-------------------|---------------------|---------------|---------|-----------|
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| Total (RM) | | | | |

Enclosed herewith, a crossed cheque no.: _____ for the sum of RM _____ issued in favour of **"IEM (Sarawak Branch)"** or **Direct Bank in to The Institution of Engineers Malaysia (Sarawak Branch), Standard Chartered Bank, Account No. 420-1-5651-8528.** I/We understand that the fee is not refundable for no-show/cancellation after my/our registration (is) is/are accepted but substitution of participant(s) will be allowed. The Organizer reserves the right to cancel, alter or change the programme due to unforeseen circumstances. Every effort will be made to inform the registered participants of any changes. **Two (2) Tea - Breaks and One (1) Lunch will be served.**

Name of Department/Organization: _____

Address: _____

Tel (O): _____ Fax: _____ E-mail: _____

Contact Person: _____ Designation: _____

Date: _____ Signature: _____

