ONE-DAY SEMINAR ON DESIGN, DETAILING, SPECIFICATION AND CONSTRUCTION OF NON-SUSPENDED INDUSTRIAL SLABS

Organiser : IES/InstuctE Joint Committee
Co-organiser : Engineering Alumni Singapore
Date : Monday, 14th March 2011
Time : 8.30 am to 6.00 pm
Venue : Auditorium, NUS Shaw Foundation Alumni House
11 Kent Ridge Drive, Singapore 119244
Fees : $150.00 (IES / IStructE / ACES / EAS Members)
$200.00 (Non-Members)
$20.00 (Students)
Fees are inclusive of 7% GST, seminar notes, combislab software, lunch and light refreshments.

CPD : 7 PDUs

DESIGN, DETAILING, SPECIFICATION AND CONSTRUCTION OF NON-SUSPENDED INDUSTRIAL SLABS

Abstract

The design of non-suspended industrial slabs often considers uniformly distributed loads only or on some occasions, just based on rule-of-thumb judgment. Construction drawings for non-suspended industrial slabs issued by different consultants are also detailed in their own familiar way; some with more detail than others but some without too many details. It is often left to the contractor to decide/interpret how best to construct the slab.

Without a unifying standard or specification, problems might arise after construction - such as cracks on the slab, failure of joints, uncertainties about the joints, flatness and levelness problems, de-bonding of surface finishes, curling of the slab corners and, worst of all, failure of the slab to perform as designed.

This seminar aims to share with participants the best practices and practical tips on design, detailing, specification and construction of non-suspended industrial slabs, including an outline of the latest standards currently in use in the UK and USA.

This course is aimed at civil and structural engineers, contractors and planners seeking to understand the issues besetting the industry. Simple rules are highlighted that could reduce waste and save money for the client. No existing knowledge of non-suspended floor design is required. Worked examples will be used to illustrate the application of the standard requirements.

Target Audience
Civil & Structural Engineers, Designers, Contractors, Planners
Mr Neil Williamson
Managing Director, MONOFLOOR UK
Neil Williamson is a chartered Civil Engineer. A graduate of University College of Swansea, he specialises in Industrial Flooring as a consultant, advising end-user clients and training flooring contractors throughout the world. He has been involved in the design and construction of industrial concrete floors for over 27 years, and is an expert in joint-less large area and superflat floor specification, design and construction. He is author of “Concrete Floors for Warehousing and Distribution Facilities (Proc ICE)” and “Concrete Floors” (ICT Concrete Technology Series). Additionally, he contributes to “Concrete” magazine, given numerous presentations at Concrete Society seminars, and is leader of an annual course on Industrial Ground Floors at Aston University (UK). In recent times he has acted as an Expert Witness in a number of high-profile disputes.

Mr Rodney Arnold
Chairman, PERMABAN UK
Rodney trained as a mechanical engineer but has been involved in the design and construction of concrete floors for over 35 years which included the early years of “Superflat” floors. He founded PERMABAN in 1982, with its innovative “leave-in-place formwork” system for constructing concrete floors and introduced the “superflat” floor and “wide bay” methods of constructing concrete floors. In 2002, Permaban received the Concrete Society “Concrete Innovation Award” for the development of “AlphaJoint” the leading load transfer and joint armouring system. He has written extensively on the topic of concrete floors, joint armouring and load transfer including a number of articles in Concrete Magazine and is a member of a number of Flooring Associations and Working Groups. Rodney has acted as an Expert Witness in a number of disputes, including claims for a polished concrete finished floor.

Mr Gan Cheng Chian
Manager, Bekaert Singapore Pte Ltd
Mr. Gan graduated from The University of Singapore in 1989 as a civil engineer & has worked in the construction industry for 21 years in various capacities – Civil & Structural Engineer, Resident Engineer, Project Manager and Technical Manager. He is currently working for Bekaert Singapore as Sales Manager, Building Products Asia and operates out of Singapore. He was the President of Engineering Alumni Singapore for 2007 - 2009. He remains active in Engineering Alumni Singapore and is also actively promoting engineering education to potential undergraduates & current NUS Faculty of Engineering undergraduates. In his 12 years working for Bekaert, he has been involved in many prestigious underground projects and construction projects around Asia. Some of the projects he has been involved with include Qinling Railway & Highway Tunnel Xian, China; Mandai Underground Cavern Singapore, BMW Shenyang, China, Daimler Chrysler Beijing, China, Busan International Exhibition & Convention Center, South Korea and Jurong Rock Cavern Singapore among others. On 20 Oct 2010, he received the NUS Engineering Alumni Service Honours for his contribution to the NUS Faculty of Engineering and its engineering alumni community.

Course Programme:

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<td>8.30 am - 9.00 am</td>
<td>Registration</td>
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<td>9.00 am - 9.15 am</td>
<td>Requirements for a Successful Floor – Client Expectations (A/Prof. Lok Tat Seng)</td>
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<td>9.15 am - 10.15 am</td>
<td>Floor Concrete Mix Design (Neil Williamson)</td>
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<td>10.15 am - 11.15 am</td>
<td>SFRC Floors – Theory &amp; Design (Gan Cheng Chian)</td>
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<td>11.15 am - 11.45 am</td>
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<td>11.45 am - 12.45 pm</td>
<td>Floor Joints (Rodney Arnold)</td>
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<td>12.45 pm - 1.45 pm</td>
<td>Lunch</td>
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<td>1.45 pm - 2.45 pm</td>
<td>Specifying, Placing &amp; Finishing Floors - Floor Flatness &amp; Abrasion Resistance Measurements (Neil Williamson)</td>
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<td>2.45 pm - 3.45 pm</td>
<td>Floor Slab Construction – Good Practices, Preparation, Laser Screed Levelling, Curing, etc. (Rodney Arnold)</td>
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<td>3.45 pm - 4.15 pm</td>
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<td>4.15 pm - 4.45 pm</td>
<td>Bonded Slabs – Technical Experience (Neil Williamson)</td>
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<td>Combislab – Theory &amp; Design (Gan Cheng Chian)</td>
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<td>5.45 pm - 6.00 pm</td>
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REGISTRATION – 3 EASY WAYS TO REGISTER!!

MAIL or EMAIL or FAX to:

Engineering Science Programme
Faculty of Engineering
National University of Singapore
Block EA #06-10, 9 Engineering Drive 1
Singapore 117576

Enquiries : Please contact Ms. Angela Loke for more information at
Tel: (65) 6516 5408  Fax: (65) 6775 4710 or
E-mail: esplmh@nus.edu.sg

Website : http://www.istructe.org/branch/Singapore/

Fees : $150.00 (IES / IStructE / ACES / EAS Members ) / $200.00 (Non-Members) / $ 20.00 (Students)

*Fees are inclusive of 7% GST, seminar notes, combislab software, lunch
and light refreshments

Payment : Payment is required prior to the course.

Refunds and Cancellations

A 50% refund will be made for withdrawals (received in writing) ten working days before
the commencement of the seminar. No refunds will be made thereafter. However, a
replacement will be accepted upon prior arrangement at no extra cost. Please inform us
of the changes, if any, by email. The Organising Committee reserves the right to cancel
the seminar and fully refund the participants, should unforeseen circumstances warrant
it. Every effort will be made to inform participants of any changes.

Confirmation of Registration

Confirmation of registration will be given 5 working days prior to the commencement date
via email, and you are required to acknowledge it. If you do not receive the said
confirmation email, you are required to contact Ms. Angela Loke immediately at
65165408.

We reserve the right to allow only confirmed registrants to attend the event.

Closing Date: Wednesday, 9 March 2011

Supported by Engineering Alumni of Singapore
REGISTRATION FORM

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Name: Mr / Ms / Dr / Prof / Er. ________________________________
NRIC: ________________________________ Designation: ________________________________
Company: _________________________________________________________________________
Address: __________________________________________________________________________
_________________________________________________________________________________
Tel: ________________________________ Fax: ________________________________
Email: ____________________________________________________________________________
Contact Person: ____________________________________________________________________
Dietary Preference: Chinese / Muslim / Vegetarian (please delete accordingly)

Please indicate:
☐ IES Members IES Membership No.: ____________________________________________________________________
☐ IStructE Members IStructE Membership No.: __________________________________________________________________
☐ Non-Members
☐ Sponsored by Company

PE No.: ________________________________ (if applicable)

Payment Mode:
Cheque No.: ________________________________ Amount (S$): ________________________________

Crossed cheques should be made payable to “Institution of Engineers, Singapore” and mail together with the Registration Form to:

Engineering Science Programme
Faculty of Engineering
National University of Singapore
Blk EA #06-10, 9 Engineering Drive 1
Singapore 117576
Attn: Ms. Angela Loke