

experiences in maintaining structural safety through mandatory Periodic Structural Inspection (PSI), Dangerous **Building Order and Enforcement** against unauthorized structures under the Building Control Act.

By attending this seminar, participants will be able to:

- i) comply with requirements of PSI
- ii) perform the duties and responsibilities of building owner, Professional engineer, property managing agents and builders efficiently and appropriately
- iii) take protective measures against unsafe structures/ buildings and unauthorized building works
- iv) adopt good maintenance practices
- appreciate importance of structural safety through case studies

WHO SHOULD ATTEND

- Building owners
- Government agencies
- Professional engineers
- Property managing agents
- Builders
- Engineers & supervisors

ACCREDITATION

PEB: 4 PDUs

SEMINAR DETAILS

Date: 15 Oct 2010 Time: 8.15am to 1.00pm MND Auditorium Venue:

MND Complex Annexe A 9 Maxwell Road

Singapore 069112

\$85.60 (incl GST) Fee:

Seminar material and refreshment will be provided

TOPICS OUTLINE

Periodic Structural Inspection (PSI) of Building

Bv: Er. Tan Kwan Joo. BCA

The structural health of a building is essential for the safety of its occupants, and the Periodic Structural Inspection (PSI) of buildings, mandated under Part V of the Building Control Act since 1989, has been an effective proactive approach in achieving a minimum level of building maintenance. This paper will present the statutory duties and responsibilities of owners and professional engineers to carry out PSI. It will also provide an effective way to ensure a comprehensive structural health check and appropriate treatment for restoring the integrity of building structures. There will be case examples of building structures with poor health detected through PSI and their follow up rectification works.

Regulation of Dangerous Building Structures

By: Er. Han Wann Kuang, BCA

The responsibility of ensuring building structures are authorized and safe rests primarily with the building owners. Unauthorized structures can potentially endanger the occupants and the public because they have not undergone the rigors of the building control process. Building structures can also become dangerous when subjected to hazards, abuse and lack of maintenance. This will result in damage to properties, financial losses, or even loss of lives. This paper will discuss the regulation of unauthorized and dangerous buildings under Part II (Enforcement and Administration) and IV (Dangerous Buildings and Closure Orders). Case studies on the measures taken by the owner, managing agent and professional engineer to safeguard such buildings or structures will also be discussed.

Application of Non Destructive Test in Building Dignostics

By: Ir. CK Cheung, HKCI & HKAS

A 50 years old building collapsed in an urban area of Hong Kong. Four occupants were killed and a number of them injured. This incident raised an alert of the city over the Hong Kong urban area. The government will enact a law for Mandatory Building Inspection Scheme MBIS) for old buildings of 30 years old and the implementation of it will be end of the year. A registry of Registered Inspector (RI) will be kept by HK Building Authority to liaise with building owners and carry out the building inspection.

The RI shall be RPE of HKIE. A profession named as Building Diagnosticians will emerge to actually conduct the inspection. HKAS will offer accreditation of building diagnostic testing. HKCI will publish a Code of Practice for Condition Assessment for Old Buildings. Ir. Cheung will talk about this implementation of MBIS from the perspectives of HKIE, HKAS and HKCI.

Assessment of Fire-damaged Structures

By: Er. Dr. Tan Teng Hooi, TY Lin International Pte Ltd

Where existing buildings have been subjected to fire-conditions, the extent of structural damage and reserve capacity has to be assessed so that the intended performance of the structure can be restored. Most fire-damaged structures can be successfully repaired, this being the more cost-effective solution than demolition and reconstruction. Before carrying out any repair it is necessary to determine the extent of the damage to the concrete and reinforcement and hence their residual strengths. This presentation provides an overview on topics such as the influence of fire on concrete properties (strength, deformation and spalling), member and structural analysis, and the role of both the restraints and the boundary conditions. Practical guidance for determining the heating history of structures is provided along with explanations on non-destructive investigative techniques for an effective assessment programme. Procedures to determine residual strength and capacity of structural elements will be illustrated.

Risk Assessment and Stabilization of Slopes

By: Er. Prof. Wong Ing Hieng, Mitic Associates

Landslides and damages to retaining walls occur frequently during periods of heavy rain. In this lectures several case histories are discussed, including methods of rectification. Loss of matric suction or negative pore pressures is the main cause of landslides in slopes in soils. These slides are often shallow. Landslides in rock slopes are frequently controlled by geological features such as joints, faults or other discontinuities. Such slides could be deep-seated. The lecture discusses risk assessment of slopes and the degree of mitigation and improvement required considering consequences of failure and costs.

