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## The Hong Kong Institute of Project Management (HKIPM) CPD Seminar

### Seminar Title

Experimental Research on Health and Safety Measures for Working in Hot Weather

### Organizers

Organizer: The Hong Kong Institute of Project Management (HKIPM)

Co-Organizer: Department of Building and Real Estate, The Hong Kong Polytechnic University (BRE-PolyU)

### Date, Time and Venue

Date: 7 January 2016 (Thursday)

Time: 7:00 pm – 8:30 pm (Registration starting at 6:30 pm)

Venue: Room PQ304, 3/F, Block P, PolyU Campus, Hung Hom, Kowloon, Hong Kong

### Language

Cantonese (supplemented with English terminology)

### Seminar Highlights

The HKIPM Project Management Achievement Awards (HKIPM Awards) is held each year in Hong Kong, and the awards are aimed to provide an opportunity for organisations and project managers in different disciplines showing their project success amongst their counterparts. The winners under each category of HKIPM Awards will be endorsed by HKIPM to submit to the international judging panel of the Asia Pacific Federation of Project Management Achievement Awards (apfpm Awards).

This seminar is intended to provide a communication platform for the representatives from the winning research projects in the year 2014, to share their valuable hands-on experiences and insightful research findings with the audience. HKIPM offers their heartfelt congratulations to the award winners for their outstanding achievements in undertaking the research project.

**Winning Awards:** Winner of the HKIPM Awards 2014 and apfpm Awards 2014 –  
Category: Research

**Project Name:** Experimental Research on Health and Safety Measures for Working in Hot Weather

**Winning Team:** Team Leader, Ir Prof. Albert P.C. Chan, Department of Building and Real Estate, The Hong Kong Polytechnic University



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## Synopsis of the Seminar

The existence of extreme hot conditions in many work environments has an adverse effect on the health and safety of employees. Such extreme conditions are commonly encountered in many occupational settings and the construction industry is found to be more susceptible to heat stress than other industries. Many countries located in the subtropical climatic zone suffer from high temperature, high humidity, and low wind speed in summer. In Hong Kong, the incidence of heat stress in the construction industry has been alarming and caused a number of verifiable reported deaths. More research endeavours should be made to protect site personnel working in hot weather. Based on 281 sets of synchronized meteorological and physiological data collected between July and September of 2010, the maximum duration (Heat Tolerance Time) that construction workers could work continuously without jeopardizing their health was computed. It was found that the maximum duration for a 45 years old worker, who smokes cigarettes and drinks alcohol occasionally, and works continuously at the Wet Bulb Globe Temperature (WBGT) index of 30°C with moderate workload without impeding his health, is 72 minutes.

Naturally workers should be allowed to take a rest before or when such a threshold is reached. However, how long the workers should be allowed to recover in hot weather after working to exhaustion remains to be a question yet to be answered. Another 411 sets of meteorological and physiological data were collected between July and August of 2011 upon which a heat stress recovery model was constructed. It was found that on average a construction worker could achieve 94% energetic recovery in 40 minutes; 92% in 30 minutes; 84% in 20 minutes; and 68% in 10 minutes. An optimal recovery time can be determined based on the findings of the research study, depending on what percentage of recovery that the workers intend to achieve, and how long the recovery time that can be afforded. The model reported in this presentation has provided a scientific and reliable prediction of the reality which may benefit the industry to produce solid guidelines for working in hot weather.

## Guest Speaker

Ir Prof. Albert P.C. Chan is currently a Chair Professor of Construction Engineering and Management and the Head of the Department of Building and Real Estate of The Hong Kong Polytechnic University.

Being a Chartered Construction Manager, Engineer, Project Manager, and Surveyor by profession, Ir Prof. Chan has worked in a number of tertiary institutions both in Hong Kong and overseas. He was a Senior Lecturer and Deputy Head of the School of Building and Planning at the University of South Australia. He joined the Department of Building and Real Estate of The Hong Kong Polytechnic University in 1996 and was the Associate Head (Teaching) from 2005 to 2011; Associate Dean and Interim Dean of the Faculty of Construction and Environment from 2011 to 2013, and from 2013 to 2014 respectively.



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Ir Prof. Chan's research and teaching interests include project management and project success, construction procurement and relational contracting, construction management and economics, construction health and safety, and construction industry development. His research has had a real and significant impact on the construction industry resulting in changes in policy decisions. His recommendations have been incorporated in the Construction Industry Council Guidelines on "Site Safety Measures for Working in Hot Weather" in April 2013.

Ir Prof. Chan has produced over 700 research outputs in refereed journal articles, international refereed conference papers, consultancy reports, and other articles. He has won a number of prestigious research paper and innovation awards since 1995. He holds an MSc in Construction Management and Economics from the University of Aston in Birmingham, and a PhD in Project Management from the University of South Australia. He maintains good links with overseas institutions. He has been an Adjunct Professor in a number of universities. Ir Prof. Chan was also a Founding Director of Construction Industry Institute, Hong Kong (CII-HK), which was a joint research institution developed by the industry and the academia.

## Registration

Prior registration is required but attendance is free of charge. Registrations will be processed on a first-come first-served basis because of limited seats. **Please complete the online registration form below on or before the closing date of 30 December 2015 (Wednesday).** Unsuccessful applicants will be notified via email on or before 4 January 2016 (Monday) in case of over-subscription. If the Black Rainstorm Signal or the Tropical Cyclone Warning Signal No. 8 or above is hoisted, the seminar will be cancelled.

## Online Registration Form

**<https://myacs.polyu.edu.hk/utis/mysurvey/index.php/586361/lang-en>**

## CPD Hours

CPD attendance certificates with 1.5 hours will be issued to each registered participant after the completion of the whole seminar including the Q&A session.

## Enquiries

For any enquiries, please contact Cr Dr Daniel W.M. Chan, Chairman of CPD Committee of HKIPM, by phone at 2766-4387 or via email at [daniel.w.m.chan@polyu.edu.hk](mailto:daniel.w.m.chan@polyu.edu.hk)