SHARED VALUES & VISION FOR
THE CONSTRUCTION INDUSTRY

An Industry renowned for professionalism and safety

- We are professionals—we take pride in safety on the job
- We do not compromise the safety of our men and jobs
- We insist on safe work practices and a safe workplace

An IES SEMINAR On

Safety in Construction
- Towards Zero Harm Workplace

DATE : 15 OCT 2009 (THURSDAY)
TIME : 8.30 AM – 5.15 PM
VENUE : FURAMA CITY CENTRE SINGAPORE
         60 Eu Tong Sen Street, Singapore 059854

ORGANISER : INSTITUTION OF ENGINEERS, SINGAPORE ( IES )
COORDINATOR : C&S Engineering Tech. Comm. (Special Task)

FEES * : $ 180 (IES MEMBERS)
         $ 230 (NON-MEMBERS)

CPD PROGRAM : 7PDUs (To Be Confirmed), 7SDUs (To Be Confirmed)
               & 7 STUs(Confirmed)

Note:
* Buffet lunch with refreshing coffee breaks
* Seminar folder with speakers’ notes; *Certificate of Attendance

SUPPORTED BY :
Ministry of Manpower
WSH Council
Housing & Development Board
Land Transport Authority
FOR WHOM

CEOs, Directors, Practising Engineers, Architects, Consultants, Construction Managers, Project Managers, EHS Professionals (i.e. EHS Managers, Safety Engineers, Safety Officers and Safety Coordinators), Client’s Representatives etc. who are interested to enhance & update his/ her continuing education on matters pertaining to Safety in the Construction Industry.

PROGRAMME OUTLINE

<table>
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<tr>
<th>Time</th>
<th>Description</th>
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<tr>
<td>8.30 am</td>
<td>Registration</td>
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<tr>
<td>9.05 am</td>
<td>Welcome Address by Guest-of-Honour, Er. Lee Bee Wah, President, Institution of Engineers, Singapore (IES), and Member of Parliament, Ang Mo Kio GRC</td>
</tr>
<tr>
<td>9.15 am</td>
<td>Presentation of “Sharing of Investigation Findings of Construction-related Accidents” - by Mr Goh Chin Keong, Group Head (Investigation), OSH Inspectorate, MOM</td>
</tr>
<tr>
<td>9.50 am</td>
<td>Presentation of “ Sustainable Safety Culture – HDB Way “ - by Er. Goh Keng Cheong, Senior Engineer, HDB</td>
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<tr>
<td>10.20 am</td>
<td>Tea Break</td>
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<tr>
<td>10.45 am</td>
<td>Presentation of “ Engagement with Passion, Commitment and Consistency “ - by Mr Mohd Ridwan bin Mohammad, Project HS&amp;E Manager, Jacobs Engineering</td>
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<tr>
<td>11.30 am</td>
<td>Presentation of “ The 5A-Way Towards Zero Harm ” - by Prof. N. Krishnamurthy</td>
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<tr>
<td>12.00 pm</td>
<td>Panel Discussion (Q &amp; A) #1</td>
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<td>12:15 pm</td>
<td>Buffet Lunch</td>
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<tr>
<td>1.30 pm</td>
<td>Presentation of “ Zero Harm Workplace : Contractor’s Perspective ” - by Mr K.B. Patali, Project Manager, Gammon Construction Ltd (S’pore)</td>
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<tr>
<td>2.05 pm</td>
<td>Presentation of “ 313@somerset – Public and Site Safety ” - by Mr Barney Philip, Construction Manager (313@somerset), Bovis Land Lease P/L</td>
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<tr>
<td>2:40 pm</td>
<td>Presentation of “ Safe Roof Construction ” - by Mr Malcolm Tay, Site Safety Officer, Bluescope Lysaght Singapore</td>
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<tr>
<td>3.15 pm</td>
<td>Tea Break</td>
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<tr>
<td>3.35 pm</td>
<td>Presentation of “ Globally Harmonized System of Classification and Labeling of Chemicals (GHS) ” - by Ms Veronica Chow, Head (Chemical Monitoring &amp; Control Group), OSH Specialist Dept, MOM</td>
</tr>
<tr>
<td>4:10 pm</td>
<td>Presentation of “ Don’t Let These Happen At Your Workplace “ - by Mr Mirza L.Baig, Senior Safety &amp; Health Manager, OED, NUS</td>
</tr>
<tr>
<td>4: 50 pm</td>
<td>Panel Discussion (Q&amp;A) #2</td>
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<td>5.15 pm</td>
<td>End</td>
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SPEAKERS

1] Mr Goh Chin Keong, Group Head (Investigation)
OSH Inspectorate, MOM

Title:
Sharing of Investigation Findings of Construction-related Accidents

Synopsis:
The presentation will highlight some recent statistics showing workplace fatalities figures among the different industries in Singapore; simple explanation of causal analysis model used when investigating workplace accidents; sharing of 3 case studies; and key learning points from the case studies.

Chin Keong is presently Group Head (Investigations) with the Occupational Safety & Health Inspectorate (OSHI), of the Ministry of Manpower. He has been with OSHI since 1 March 2006.

Chin Keong graduated from the National University of Singapore in 1996 with a Bachelor Degree in Civil Engineering. He worked for seven years in the construction industry in various positions. As a Project Engineer with building contractors, Chin Keong was involved in the structural aspects of constructing a building. He also worked with Project Managers and Safety Officers to develop safe work procedures.

While in the industry, Chin Keong also worked for three years as a Civil Engineer cum Loss Adjuster. This role was Chin Keong's first foray into accident investigation. He investigated incidents to determine the causes and the coverage under insurance policies.

Chin Keong joined MOM as a Senior Investigation Officer with OSHI to investigate selected work injury compensation cases so to ascertain whether they fell within the ambit of the then-Workmen’s Compensation Act. Besides being a qualified engineer, Chin Keong has also undergone training on workplace safety and health issues as well as investigation techniques and technology.

Following a short stint in investigating work injury compensation cases, Chin Keong subsequently proceeded to investigate serious and fatal workplace accidents under the Workplace Safety and Health Act. He was promoted to Group Head (Investigations) in April 2008 to lead a team of four investigators.

To date, Chin Keong and his team have investigated more than 39 cases.

2] Er. Goh Keng Cheong
Senior Engineer, HDB

Title:
Sustainable Safety Culture – HDB Way

Synopsis:
Housing & Development Board’s (HDB) has been a leader in promoting safety management in projects. In the 1970s, there was an urgent need to establish safety measures required for a safe working environment with acceptable standards for the workers. HDB thus took a proactive approach, laid the infrastructure to improve the safety practices on site. Learning from past experiences, we have developed a well-defined and dynamic safety framework, a multi-layered defence system which includes mechanism for innovation, feedback and sharing of knowledge.
Moving forward, we believe that a safety culture is the engine that continues to drive the organisation towards the goal of maximum attainable safety regardless of economic pressure or who are occupying the top management position. Thus we adopted the **Sustainable Safety Culture** approach. It is a comprehensive approach which involves every stakeholder (including management, designers, contractors and workers) and considers all stages of a project (beginning at its conceptualisation and lasting through the lifespan of the building). We aim to inculcate in all parties that safety is everyone’s responsibility. With this, we can then move towards self-regulation and ownership of safety.

Er. Goh Keng Cheong is currently the Ag Head of the Construction Safety and Quality Audit Unit, in the Building & Infrastructure Department of the Housing and Development Board (HDB), Singapore. He graduated from the National University of Singapore (NUS) in 1991 in Civil Engineering (Hons) and obtained his Master of Science (Civil) in 1995 from NUS. He further obtained his Master of Science in Safety, Health and Environmental Technology from NUS in 2001. Er. Goh is a registered Professional Engineer and he has 18 years of working experience in the areas of building design, site supervision, construction technology, maintenance and project management.

3] Mr Mohd Ridwan bin Mohammad,
Project HS&E Manager, Jacobs Engineering

**Title:**
Engagement with Passion, Commitment and Consistency

**Synopsis:**
At Jacobs, we see safety and quality differently. We embarked into an Incident, Injury Free initiative, where we called it “Beyond Zero – A Culture of Caring”. It’s more than a policy manual or list of do’s and don’ts. We strive to go BeyondZero® incidents by putting the health and safety and worklife quality of our employees including our contractors, vendors and stakeholders and the public in general first in everything we do. BeyondZero® is about possibility thinking; a belief that we can achieve a workplace free of incidents and injuries. But we’re not stopping there! As individuals we are committed to making safety a personal value and taking responsibility for ensuring no one is injured on or off the job – including our colleagues, family and friends.
The design of the work process allows all to be engaged, and recognition accorded by their supervisors. The engagement process includes interactive sessions such as trainings, meetings, planning work tasks, identification of hazards creating transparency in accountability, responsibility and ownership.

Shifting the paradigm, our goal is to create a culture of caring; one where we value our employees for who they are and what they do. After all, in one of our core values we said that “People Are Our Greatest Asset”.

Mr. Mohd Ridzwan bin Mohammad, a Project Health Safety and Environment Manager with M/s Jacobs Engineering Singapore Pte Ltd, has more than 12 years experience as health, safety and environment professional in industries including Pharmaceutical, Oil and Gas, Petrochemical and commercial buildings. He has additional 14 years experience in maintenance and construction industry either as a Construction Supervisor or Resident Technical Officer.
He holds a Bachelor of Applied Science in Construction Management and is currently pursuing his Master Science in Safety and Risk Management.
Title:
The 5A-Way Towards Zero Harm

Synopsis:
The 5A-Way was proposed by the author as a fresh technique of applying time-honoured principles of decision-making to crisis management in any endeavour.

Based on the five graded steps Attitude, Awareness, Acceptance, Analysis, and Action, the author establishes a logical framework for the development of a safety management system in construction industry.

The approach happens to be in tune with Government’s recent initiatives to make construction industry performance-oriented, pro-active, sharing and caring in its safety culture.

In this paper, author develops each step of the 5A-Way towards the aim of zero harm in a wider context beyond accidents.

Starting with the factors involved in achieving zero harm, the paper covers the need for and benefits of working towards zero harm, and addresses the onerous responsibilities and pitfalls in focussing on the goal too exclusively.

Certain topical concerns such as working at height and manual handling are treated in some detail.

Professor Krishnamurthy is currently Consultant in Safety, Structures, and Computer Applications in Singapore. He is an Accredited Trainer of the Singapore Ministry of Manpower to teach certain safety and risk management courses run by the Singapore Construction Safety and Consultancy Pte Ltd (SC2), and the Chief Facilitator for Risk Assessment workshops conducted by Singapore Contractors Association Limited (SCAL) and Institution of Engineers (Singapore). He is involved in failure investigations, hazard analysis and risk assessment of temporary structures.

He has nearly five decades of teaching, research, and consultancy experience, including teaching short courses for practicing engineers, in U.S.A., Singapore, India, Hong Kong, and Malaysia. In U.S.A. he held civil engineering professorial positions in three American universities, in the last of which he was Department Chairman. He has also held senior positions in the National University of Singapore, and the Mysore University in India. He ran the Vidyaranya Academy of Computing at Mysore, India for 11 years.

Dr. Krishnamurthy has numerous publications to his credit. He was Chief Editor of the Guidebook on Scaffolds published by SCAL. He leads the development of a guidebook on life-cycle design against structural collapse, for the Institution of Engineers (Singapore).

More information may be obtained from his website: www.profkrishna.com

Title:
Zero Harm Workplace : Contractor’s Perspective
Synopsis:
In the recent years, construction industry world-wide and particularly in Singapore has geared up towards creating a strong safety culture. The Ministry of Manpower (MOM) in Singapore has been progressively stepping up the legal requirement in the past few years. For many, it has been more than just a change. It has involved a mindset shift to adopt safety as a core part of their work.

Safety is not a stationary target but a journey that involves continual innovation, learning and application. It involves a number of stakeholders including the government authorities, clients, designers, consultants and builders. MOM’s campaign for 2009- “Safety Starts with Me” precisely brings out the point that safety is a responsibility of everyone.

Zero Harm Workplace requires integration of safety in every phase of the construction project and should begin at the conception of the project and move steadily through the design phase focusing on ‘Safety by Design’ and finally be delivered cautiously though the construction phase.

Zero Harm Workplace achieves a human face when we consider the responsibility that we owe to the numerous families, children, parents waiting anxiously for their bread winner to return home safe and healthy. In essence, Zero Harm Workplace is a holistic principle of care and engagement.

K B Patali is a Project Manager with Gammon Construction Limited (Singapore Branch). He has 15 years of local broad based construction supervision and management experience and achievements. Patali is currently leading the operation department in Gammon’s prestigious New ITE College West PPP Project after having successfully managed and delivered the Mole Project.


Patali has taken an active role within Gammon to promote and establish sustainable construction practices and initiatives. He sits in the in-house Green Group as a management representative to reinforce and drive Green Excellence within the organization.

The Mole Project which was his first project as Project Manager was awarded the prestigious Jardine Pride In Performance Award in 2009 in recognition of innovation and creativity accomplished in the project and his current project The ITE College West has built up an excellent safety track record and recently celebrated 3 Million Safe Manhours.

Outside work, Patali is actively involved in imparting Human Values to children and volunteering as part of an international social service and spiritual organization. He is a strong votary of CSR and has actively advocated CSR within Gammon.
6] Mr Barney Philip,
   Construction Manager (313@somerset), Bovis Land Lease P/L

Title:
313@somerset – Public and Site Safety

Synopsis:
313@somerset has many challenging conditions including construction in and around an active
MRT station and works over and under Stamford Canal. The location on Orchard Road also high level public safety interface, with thousands of people walking through the site daily. This presentation explains how the public safety has been maintained during construction and also looks at some of the more challenging areas of the site and the safety management employed by Bovis Lend Lease in order to work Incident and Injury Free.

An experienced construction manager with thirty years experience in Australia and Asia (Thailand, Taiwan and Singapore). Barney Philip’s experience encompasses high rise commercial buildings, retail centres, deep basements in a range of soil conditions, industrial facilities and civil engineering works. Barney Philip graduated with Bachelor of Building with First Class Honours from Melbourne University in 1980.

7] Mr Malcolm Tay, Site Safety Officer
   Bluescope Lysaght Singapore

Title:
Safe Roof Construction

Synopsis:
Sharing of Safe Roof Construction Solution of which is cost effective, practical, preventing falls and in compliance with WSH Construction Regulation R23.

Mr Malcolm has 17 years experiences for sites inspection and ensuring compliance with factories (BOWEC) regulations. Mr Malcolm is currently a Site Safety Officer with Bluescope Lysaght Singapore. His roles include site inspections and audit, and implementing of Site Safety Management System.
8] Ms Veronica Chow  
   Head (Chemical Monitoring & Control Group), OSH Specialist Dept, MOM

**Title:**  
Globally Harmonized System of Classification and Labeling of Chemicals (GHS)

**Synopsis:**  
This presentation provides participants with an overview of the GHS and Singapore’s implementation plan.

Veronica Chow Li Yee holds a Masters of Science (Safety, Health and Environmental Technology) from NUS. She is the Head in Health Risk Control branch at the Occupational Safety and Health Division, Ministry of Manpower. Her area of specialty includes Chemical Safety and her current focus is Globally Harmonised System (GHS). She is currently a member in the National GHS Task Force for hazard communication.

9] Mr Mirza L.Baig, Senior Safety & Health Manager, OED, NUS

**Title:**  
Don't Let These Happen At Your Workplace

**Synopsis:**  
Workplace safety and health related hazards will be presented by the presenter. Most of these construction industry related hazards were captured by the presenter. Following construction industry related hazards are included in this presentation:

(a) Machinery related hazards  
(b) Electrical hazards  
(c) Falling from height hazards  
(d) Falling object hazards  
(e) Protruding pipes/ rebars/ nails hazards  
(f) Tripping hazards  
(g) Miscellaneous hazards

The participant will learn in hazards identification [key component of risk assessment]

Mr Mirza has obtained MSc (Safety, Health & Environmental Technology) and MSc (Structural Engineering) degrees from NUS and the M.Eng (Environmental Engineering) degree from Asian Institute of Technology, Bangkok. He was awarded scholarship by HRM The King of Thailand for his M.Eng (Environmental Engineering) degree. He is MOM - Approved Risk Management trainer and MOM - Approved Workplace Safety and Health Auditor (Open Category). He is SAC accredited SS 506 Part 1 auditor. Mr Mirza was a senior auditor with one of the leading certification body. He has audited wide spectrum of industries.  
Currently he is working as Senior Safety and Health Manager with Office of Estate and Development, National University of Singapore.
Registration Form

**Seminar On “SAFETY IN CONSTRUCTION”**
- Towards Zero Harm Workplace

**Date**: 15 Oct 2009  
**Time**: 08.30am to 5.15pm  
**Venue**: Furama City Centre Singapore  
**Fees**: $180 (M) $230 (NM)

Please mail/fax the completed form to:

**IES**  
70 Bukit Tinggi Road, Singapore 289758  
(Fax: 6463 9468)

**Participant Details**

Name : ____________________________ NRIC : ____________________________  
Company : ____________________________ Designation: ____________________________  
Address : ________________________________________________________________  
________________________________________ Postal Code : ____________________________  
Tel : ____________________________ Fax : ____________________________  
Email : ____________________________

Please indicate :   
☐ IES members IES M’ship No.: ____________________________  
☐ Non-members ☐ Sponsored by company  
P.E. No.: ____________________________ (if applicable)

Date : ____________________________ Signature : ____________________________

**Contact Person Details** *(if different from participant)*

Name : ____________________________ Designation : ____________________________  
Tel : ____________________________ Fax : ____________________________  
Email : ____________________________

**Payment Details**

Bank/Cheque no. : ____________________________ Amount : ____________________________

* All Fees are inclusive of 7 % GST.  
Cheque should be made payable to: “Institution of Engineers, Singapore” or “IES”.

**Acceptance of Terms and Conditions for Registrations of IES Academy’s Events**

I agree to abide by the Terms and Conditions for Registration of IES Academy’s Events.

Name : ____________________________ Signature : ____________________________

**Terms and Conditions for Registration**

Registration will be on a first-come-first-served basis and will only be accepted upon the receipt of payment. Please notify us in writing of any change in your registration at least 7 working days before the commencement date.

**Confirmation of Registration**

Confirmation of registration will be given 5 working days before the commencement date via email or fax, if you do not hear from us, please call Andy Ong / Karen at Tel: 64639211.

**Withdrawals/Refunds of Fees**

Notice of withdrawal must be given in writing, policy on refund of course fee is as follows:

- More than 14 working days before the commencement date: Full refund
- Less than 14 but more than 7 working days preceding commencement: 50 % refund
- Within 7 working days before the commencement date: No refund

Replacement is allowed but restrict to once only. When a non-member replaces a member, the participant will have to pay the difference in the relevant fees applicable.

**Cancellation by IES**

IES reserves the right to make any changes to or cancel the Event at its sole discretion, in which case fees paid will be refunded accordingly. We will however make every effort to inform the participants in time.