BUILD SMART Conference
27 April to 28 April 2011
SINGAPORE EXPO (Conference Halls B – E)

TAKING THE LEAD IN PRODUCTIVITY

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BUILD SMART

To raise awareness in enhancing construction productivity and encourage industry players to build smart, the Building and Construction Authority (BCA) of Singapore will launch the inaugural Singapore Construction Productivity Week from 25 to 29 April 2011. The Week will feature three key events: the Skilled Builder and BIM Competition; the Build Smart Conference; and the BuildTech Asia 2011, an exhibition and tradeshow on construction, machinery and building materials.

The Build Smart Conference is the anchor event of the Singapore Construction Productivity Week. It is jointly organised by BCA and SPHERE, a subsidiary of Singapore Press Holdings. The objective of the Build Smart Conference is to share best practices and showcase exemplary projects which have successfully adopted productive methods of construction.

Conference Agenda Day 1

OPENING CEREMONY & PRIZE GIVING

09.00 AM - 10.30 AM
- Registration
- Opening of Build Smart Conference and BuildTech Asia Exhibition by Guest of Honour
- Prize Presentation to Winners of Skilled Builder and BIM Competition
- Tea Break

TRACK 1: BIM & CONSTRUCTION I.T.

10.30 AM - 12.30 PM
- Building Information Modelling: Opportunities for Improving Design, Construction and Operation
  - Autodesk, Mr. Phil Bernstein, Vice President,
- The Strategic Guide to Implement BIM in Construction Industry
  - BuildingSMART, Prof. Kim Inhan, Kyung-Hee University, Korea International Council Member of BuildingsSMART International
- OpenBIM Concept
  - Tekla B&C BIM, Mr. Leif Granholm, Senior Vice President
  - Arup Singapore Pte Ltd, Mr. Phil Lazarus, BIM Coordinator

12.30 PM - 02.00 PM
Lunch Break and Tour of Exhibition

02.00 PM - 05.00 PM
- Extracting Intelligent Design Decisions of BIM Using Multi-Disciplinary Optimisation
  - Bentley System, Mr. Santanu Das, Vice President
- Benefits of Building Information Modelling
  - Case Study from Multi-disciplinary Consultant's Perspective
  - CPG Consultants Pte Ltd, Mr. Tan Shao Yen, Executive Vice President (Architecture)
- From Intent to Reality: The Digital Modelling Way
  - Woh Hup (Pte) Ltd, Mr. Low Leong Leong, Senior Architect
- Building Information Modelling: Local Case Study From Contractor’s Perspective on How To Remove Construction Risk Digitally
  - Sembawang Engineers and Constructors, Mr. Tan Liang Seng, Assistant Vice President
- How Geo-Spatial Technologies Impact BIM
  - GPS Lands (S) Pte Ltd, Mr. Gerry Ong, Managing Director

End of Day 1
TRACK 2: PROCUREMENT & CONSTRUCTION MANAGEMENT

- Target Costs Principles, Challenges and Benefits
  - Mass Transit Railway Corporation Ltd, Mr. Malcolm O'Neil, Contracts Administration Manager
  - Gammon Construction Ltd, Mr. Shaun O'Hanlon, Senior Commercial Manager

- On the Link of Innovation and Productivity: Yau Lee's Way
  - Yau Lee Construction (Singapore) Pte Ltd, Ms. Rosana Wong, Managing Director

- Shimizu's Challenges to Achieve Integration and Higher Construction Productivity
  - Shimizu Corporation Singapore Office, Mr. Hitoshi Fujita, Senior Project Director

- Productivity - Dragages's Approach
  - Dragages Singapore Pte Ltd, Mr. Allan Tan, Project Director

TRACK 3: PRECAST AND PREFABRICATION

- HDB's Productivity Journey and Innovation in Precad and Precast Construction
  - Housing & Development Board (HDB), Er. Wong Swee Khian, Head

- Subterranean Precast Technology
  - Ryobi Kiso (S) Pte Ltd, Mr. Wong Kam Seng, Assistant General Manager

- Automation of Precast Concrete Production at Tiong Seng Prefab Hub
  - Robin Village Development Pte Ltd, Mr. Michael Seah Chun Hian, Managing Director

- Innovation and Prefabrication of M&E System
  - Gammon Pte Limited, Mr. Robyn Thomas, General Manager (E & M)

Lunch Break and Tour of Exhibition

TRACK 4: REGULATORY REVIEW

- Enhanced Buildability Framework to Improve Construction Productivity
  - Building and Construction Authority (BCA), Mrs. Foo-Leoh Chay Hong, Assistant Director

- Plans Submission Process for Ductless Jet Fans System in Carparks
  - Singapore Civil Defence Force (SCDF), Mr. Heng Chai Liang, Assistant Director

- Streamlined Processes for Faster Approval
  - Land Transport Authority (LTA), Mr. Mohd Iskandar, Deputy Manager

- Challenges in the Construction of Pumping Mains in Singapore
  - Public Utilities Board (PUB), Ms. Esther Khoo, Executive Engineer

TRACK 5: CONSTRUCTION TECHNOLOGY

- Case Study on the Use of Self-Compacting Concrete
  - Environ Construction Co. (Pte) Ltd, Mr. Richard Cheng, Director

- Strut-Free Method for Basement Construction
  - Building and Construction Authority (BCA), Dr. Poh Teoh Yaw, Senior Executive Geotechnical Specialist

- Increasing Construction Productivity through Construction Chemical Technologies
  - BASF, Mr. Nilotpol Kar, Senior Manager, Asia Pacific

- Use of Innovative Design and Construction Methods to Enhance Productivity for LTA Civil Engineering Projects
  - Land Transport Authority (LTA), Mr. Phua Hooi Leng, Senior Project Engineer

- Trenchless Technology for Sewer Rehabilitation
  - Public Utilities Board (PUB), Mr. Neo Peng Siang, Engineer

Content is correct at time of print and is subject to change without prior notice.
Monday & Tuesday, 25 - 26 April 2011

BCA Academy

200 Braddell Road, Singapore 579700

1. TELESCOPIC HANDLER OPERATIONS

Competitors are required to maneuver the telescopic handler according to the circuit drawing provided and perform predetermined operations smoothly and safely. Competitors will be expected to transport items such as beams and barrels while tackling challenging courses.

Competitors will have to demonstrate the following skills:

- Smooth maneuvering of telescopic handler
- Efficient handling of handler in tight or difficult positions
- Familiarity of telescopic handler lifting controls
- Fast and safe operation of telescopic handler

The top 2 operators will be awarded champion and runner-up respectively. The competition will test them in all elements of skills involved in telescopic handler operations.

2. SYSTEM FORMWORK INSTALLATION

The 4-men teams are expected to be able to comprehend drawings, effectively plan their time, demonstrate competence with tools, observe safety and keep work stations clean and tidy. Participants will be judged on their understanding of the drawings and producing quality system formwork while adhering to a strict timeframe.

Competitors will have to demonstrate the following skills:

- Measuring and marking out
- Planning and setting out work
- Working from detailed drawings to erect formwork
- Working with a range of materials and tools
- Erect with both vertical and horizontal forms

The top 2 teams will be awarded champion and runner-up respectively. The competition will test them in all elements of skills involved in system formwork erection.

3. DRYWALL INSTALLATION

The 3-men teams will compete in a specific drywall project designed to challenge the team’s ability to interpret drawings, measure accurately, install simple M&E services, effectively plan their time, demonstrate competence with tools and use appropriate materials to produce accurate and neat work outputs while adhering to a strict timeframe. Participants are to demonstrate observance of safety procedures and good housekeeping habits.

Competitors will have to demonstrate the following skills:

- Measuring and marking out
- Planning and setting out work
- Working from detailed drawings
- Working with a range of drywall materials and tools

The top 2 teams will be awarded champion and runner-up respectively. The competition will test them in all elements of skills involved in drywall partition and services installation.

4. CRANE OPERATIONS

Using the crane operations simulator, competitors will be required to complete a series of tasks in a given scenario provided. The scenario will include both simple and complicated maneuvers commonly performed during lifting and will be designed to fully utilise all aspects of crane controls. Completed projects will be assessed by an automated system.

Competitors will have to demonstrate the following skills:

- Ability to lift and hoist load in a safe and stable manner
- Perform lifting for the installation of precast panel or structural steel
- Observe proper safety procedure
- Ability to follow signals given by the virtual signal man
- Ability to complete operations within the given time

The top 2 operators will be awarded champion and runner-up respectively. The competition will test them in all elements of skills involved in crane operations.

5. BUILDING INFORMATION MODELLING (BIM)

Form teams of two to three persons from the same category to participate in the 2-day Open BIM Competition (total of 24-hours at the BCA Academy). Staff of industry firms or school students and lecturers can form teams to participate. Industry practitioners can also form teams with the school students.

Categories
1. Architecture
2. C&S Engineering
3. M&E Engineering
4. Construction, QS and FM
5. Student

Competitors will have to demonstrate the following:
1. Ability to demonstrate the capability of BIM and as many of its benefits as possible within the stipulated time(e.g. conceptual design, modelling, documentation, simulation/analysis, walkthrough, quantity take-off, crash detection, etc)
2. Creative and innovative use of BIM for a better sustainable or buildable design
3. Presentation style that shows team work and effort
4. Interoperability across various software platforms (e.g. Modelling to simulation/rendering)

The winning team of each category will be awarded attractive prizes.

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REGISTRATION CLOSED
REGISTRATION FEES

☐ Two-Day Pass (Full Two-Day Conference)  SGD 320

| Sign up for half-day site tour on Friday, 29 April.

The half-day site tour (AM) will allow conference delegates to visit projects of the winners of the BCA Construction Productivity Award that have adopted productive methods of construction.

For Day Two, you are required to choose one from the following categories:

Category 1: (Please Tick One)

| Procurement and Construction Management
| Precast and Prefabrication

Category 2: (Please Tick One)

☐ Regulatory Review
☐ Construction Technology

☐ One-Day Pass  SGD 200

| Day One (BIM & Construction I.T.)

| Day Two (Concurrent Streams)

For Day Two, you are required to choose one from the following categories:

Category 1: (Please Tick One)

| Procurement and Construction Management
| Precast and Prefabrication

Category 2: (Please Tick One)

☐ Regulatory Review
☐ Construction Technology

*BOA-SIA CPD Accreditation (for attending both days of conference) 6 points
*PEB CPD Accreditation (for attending both days of conference) 9 points

**Site tour is on a first come first serve basis, subject to availability.
* Registration Fees exclude all relevant taxes.

Approving Manager: Mr | Mrs | Ms | Dr | Other |

FirstName: ___________________________ LastName: ___________________________
JobTitle: ___________________________ Department: ___________________________
Telephone: _________________________ Fax: ________________________________
Email: _____________________________
Company: ___________________________
Address: ___________________________ ___________________________

Delegate 1: Mr | Mrs | Ms | Dr | Other |

FirstName: ___________________________ LastName: ___________________________
JobTitle: ___________________________ Department: ___________________________
Telephone: _________________________ Fax: ________________________________
Email: _____________________________

Delegate 2: Mr | Mrs | Ms | Dr | Other |

FirstName: ___________________________ LastName: ___________________________
JobTitle: ___________________________ Department: ___________________________
Telephone: _________________________ Fax: ________________________________
Email: _____________________________

Data Protection: Personal data is gathered in accordance to the Data Protection Act 1998. Your data may be passed to other companies who wish to communicate with you offers related to your business activities. If you do not wish to receive these offers, please email info@alleventsgroup.com

Skilled Builder and BIM Competition Registration Form

**Schedule**

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**Prizes**

**Skilled Builder Competition**
Participants will be awarded certificate of participation
Category winner will be awarded cash prize and trophy

Team events:
$2,000 for champion
$1,000 for runner-up

Individual events:
$500 for champion
$250 for runner-up

Overall winner
(Champion Skilled Builder) will be awarded

**Challenge Trophy**

**BIM Competition**

Winner of Architecture Category:
$3,000 + Trophy

Winner of C&S Engineering Category:
$3,000 + Trophy

Winner of M&E Engineering Category:
$3,000 + Trophy

Winner of Construction, QS & FM Category:
$3,000 + Trophy

Winner of Student Category:
$3,000 + Trophy

**Skilled Builder Competition**
My company would like to sign up for one or more of the following Skilled Builder Competitions:

(You may tick more than 1)

- [ ] Telescopic Handler
- [ ] Drywall Installation
- [ ] System Formwork Installation
- [ ] Crane Operations

**Company Details**

*Kindly note that after submitting this form, you will receive an email which will require you to provide the full details of your team members.*

Name of Company: ________________________________
Contact Person: ________________________________
Designation: __________________________ ROC Number: _____________
Telephone No.: __________________ Fax No.: __________________
Email: ________________________________
Mailing Address: ________________________________

For more details about the competition please contact:

Skilled Builder Competition  Mr. Albert Tang  Tel: +65 6325 5054  Email: albert_tang@bca.gov.sg
BIM Competition  Ms. Soon Lay Kuan  Tel: +65 6325 1102  Email: soon_lay_kuan@bca.gov.sg