Seminar Information
Date: 22 November 2013 (Friday)
Time: 1.30pm – 5.30pm
Venue: 2 Bukit Merah Central Auditorium, Podium Block Level 3 Singapore 159835

Fee per pax (inclusive of GST): $48.90
Fee includes a copy of SS 591 : 2013 and light refreshments.

Closing Date: 20 November 2013

Enquiries:
Ms Paige Tan (Event Manager) Tel: 6295 5478
E-mail: paigetan@eurekacampaign.com
Operating Hours: 9.30am – 5.30pm

How to Register
Please register using the following methods:

1) Email the completed form to: brendatan@eurekacampaign.com
2) Fax the completed form to: 6295 5120
3) Post the completed form together with cheque to:
   SPRING Standard Seminars
c/o Eureka Campaign Associates Pte Ltd
   52 Horne Road, #03-01
   Singapore 299071

All cheques should be crossed and made payable to Eureka Design and Exhibits Planners. No invoice will be issued.

Registration is on a first-come-first-served basis and will be confirmed upon receipt of full payment. For email and fax registrations, please ensure that your cheque reaches us within 5 working days. No refund will be made for any cancellation. However, a replacement is allowed. The Organiser reserves the right to postpone or cancel the seminar due to unforeseen circumstances.

Registration Form
Dr / Mr / Ms / Mrs: __________________________________________________________
Designation: ______________________________________ Email: ______________________
Contact Person (if different from above): ______________________________________
Designation: ______________________________________ Email: ______________________
Organisation (in full): _______________________________________________________
Mailing Address: ____________________________________________________________
_________________________________________________________________________
_________________________________________________________________________
Mobile: __________________ Tel: __________________ Fax: ________________________
Cheque Number: ______________ Professional Engineer's Licence Number: ________
NRIC No: __________________ (applicable to Professional Engineers only)


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The seminar is accredited with PDU points (pending) and BOA-SIA CPD points (pending)

Organised by: Supported by:

The Singapore Standardisation Programme is managed by SPRING Singapore.
**Introduction**

Central chilled water systems account for 30%-50% of overall energy consumed in commercial and industrial buildings. High energy efficiency chilled water systems help reduce operating costs and minimize environmental impact of such buildings in Singapore. It is important to carry out long-term, continuous and accurate measurement and verification of important process parameters and relevant energy performance data to ensure that the chilled water systems are operating at their optimum level.

The new SS 591 specifies the requirements for sensors & instruments and data acquisition systems in capturing relevant parameters such as temperature, flow and power consumption of the central chilled water systems. It also specifies the requirements for the installation, commissioning, operational monitoring and maintenance of the measurement and verification (M&V) system in order to facilitate the long term and continuous measurement of the central chilled water system energy efficiency. The standard can also be used in assessing the performance of new and retrofitted central chilled water systems as well as how well the existing systems are being maintained by contractors.

In conjunction with the seminar, there will be a mini exhibition showcasing temperature measurement and calibration equipment.

**Who Should Attend**

- Building professionals, mechanical engineers, developers, building owners, facility managers responsible for the design, installation and maintenance of central chilled water systems
- Energy services companies (ESCOs)
- Calibration and testing laboratories
- Relevant government agencies

**What You Will Learn**

- Overview of the new SS 591 standard
- How the new standard supports conformance to the Green Mark version 4.1 and energy efficiency initiatives administered by NEA
- Important factors that affect calibration accuracy of sensors and measuring instruments & an understanding of measurement uncertainty
- Benefits of measuring and verifying the energy efficiency of central chilled water systems

**Programme**

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<tr>
<td>1.30pm</td>
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<td>Welcome Address and Overview of Building &amp; Construction Standards Committee</td>
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| Mr Goh Peng Thong  
Chairman, Building & Construction Standards Committee |
| 2.10pm | Overview of SS 591 on Long Term Measurement of Central Chilled Water System Energy Efficiency  |
| Mr Lee Eng Lock  
Convenor, Working Group on SS 591  
Technical Director, Trane Asia Energy Solutions |
| 2.40pm | Energy Efficiency Initiatives for the Building Sector  |
| BCA representative |
| 3.00pm | Refreshments                                                             |
| 3.30pm | NEA’s Energy Efficiency Initiatives for Industry and Public Sectors  |
| Mr Chong Khai Sin  
Senior Manager, National Environment Agency |
| 3.50pm | Calibration of Sensors and Measuring Instruments  |
| Ms Angie Ng  
Member, Working Group on SS 591  
Product Manager, Acez Instruments Pte Ltd |
| 4.10pm | Measurement Uncertainty and Energy Saving Management  |
| Dr Wang Li  
Principal Metrologist, National Metrology Centre |
| 4.30pm | The Multiple Benefits of Measuring and Verifying the Energy Efficiency of Chiller Plants  |
| Mr Steven Kang  
Member, Working Group on SS 591  
Business Development Director, Measurement & Verification Pte Ltd |
| 5.00pm | Panel Discussion  |
| Moderator: Mr Goh Peng Thong  
Chairman, Building & Construction Standards Committee |
| 5.30pm | End                                                                      |