## 03 SEPT 2015 | 9:00AM - 5:00PM | MARINA BAY SANDS



# SUSTAINABLE LABORATORIES FORUM 2015

#### FORUM OVERVIEW

The Sustainable Laboratories Forum is organised by the Energy Research Institute at Nanyang Technological University (ERI@N) together with the Sustainable Energy Association of Singapore (SEAS) and supported by Singapore's National Environment Agency (NEA) and International Institute for Sustainable Laboratories (I<sup>2</sup>SL) in the US. It will be co-located with the International Green Building Conference (IGBC) 2015 which expects to attract more than 1000 participants from over 30 countries.

PDUS AWARDED BY PROFESSIONAL ENGINEERS BOARD, SINGAPORE

#### **OBJECTIVES**

At the end of the forum, participants will:

- Understand the scope of opportunities and benefits of sustainable laboratory development.
- Learn from real case studies and best practices
- Network with local and international experts in the field and pioneers



CALL 6337 9886 TO ENQUIRE!





## The Sustainable Laboratories Programmes

### I<sup>2</sup>SL Introduction Course: High Performance, Low Energy Design

#### 01 SEPT 2015 | 1:00PM - 5:00PM | SEAS TRAINING CENTRE

This Introductory Course on High-Performance, Low-Energy Design is a half-day workshop that introduces strategies for designing and constructing sustainable laboratories in both new and existing facilities.

Seasoned laboratory designers, energy managers, and facilities professionals will teach the course, and cover topics that include:

- The architecture and engineering of high-performance laboratories
- The energy-efficient design process
- Air supply and distribution systems
- Laboratory exhaust systems
- Lighting
- Case studies
- Resources and tools

#### **Target Audience**

Laboratory professionals from all backgrounds are encouraged to attend this course because it gives a good introduction to laboratory sustainability and why it's such an important issue. Laboratory professionals encouraged to attend include but are not limited to:

- Architects
- Engineers
- Facility owners and managers
- Mechanical, engineering, and plumbing professionals
- Project managers
- Construction/contracting managers
- Commissioning specialists
- Laboratory equipment manufacturers
- Green Mark Professionals/Managers
- Safety, health, and environmental management professionals
- Laboratory users

While designed as an introductory course, those familiar with sustainable laboratory design are also welcome to attend and contribute to the discussion.

### The Sustainable Laboratories Forum

#### 03 SEPT 2015 | 9:00AM – 5:00PM | SANDS EXPO & CONVENTION CENTRE, MARINA BAY SANDS, L3

Continuing the momentum of Singapore Sustainable Laboratories Conference 2014, the Sustainable Laboratories Forum 2015 will again bring together like-minded stakeholders to discuss and share knowledge on topics specific to safe and energy efficient laboratories and high tech facilities.

Co-located this year with the International Green Building Conference (IGBC), the Sustainable Laboratories Forum will provide a bigger platform for collaboration and networking for participants.

#### **Target Audience**

Architects, Engineers, Consultants, Laboratory owners/ developers, Facility managers, Technology providers, Government policy makers, Researchers, Relevant stakeholders (for sustainable laboratories and facilities)

#### Opening Plenary Session

- Welcome remarks
- Update from 2014: Continued Efforts to Promote Laboratory Sustainability in Singapore
- Plenary Talk: "Energy Efficient HVAC Design for Laboratories in Hot and Humid Environments" by Dan Doyle, P.E., Board of Director, 12SL

#### Designing, Building and Operating Sustainable Laboratories

- · Certification and Standards Development
- Risk Assessment in Energy Efficient Laboratories
- Sub-metering in Energy Intensive Facilities
- Panel Discussion: Challenges Implementing Sustainable Laboratories Design and Operation in Singapore
- Case Study: Operating and Maintaining Energy Efficient Laboratories

#### Technology Snapshots

- Snapshot of Cutting-edge Technologies for Sustainable Laboratories:
  - Liquid Desiccant Air Conditioning for Laboratories
  - Fumehood and Exhaust Control
  - New Generation Refrigeration Technologies
  - Implementing energy efficiency dashboard for laboratories
- Closing Panel Discussion

#### **SPEAKERS (WORKSHOP & FORUM):**



Dan Doyle Chairman, Grumman/Butkus Associates



**PROGRAMME FEES** 

Punit Jain Key member, Cannon Design's Science and Technology

#### **ABOUT IGBC**

Organised by the Building and Construction Authority of Singapore and into its seventh run from 31 Aug – 6 Sept 2015, the Singapore Green Building Week (SGBW) will play host to international green building experts, policy-makers, academics, built environment practitioners, tenants and end-users, including members of the public and students, for a congregation of ideas, collaboration, partnership and learning, to achieve a shared vision of a greener planet through the green building movement.

Participants of Sustainable Laboratories Forum will be offered IGBC registration code to purchase special IGBC pass at SGD\$600 which comprises of

- 1 day pre-IGBC pass on 1 Sept
- 3 days conference and workshops pass from 2 to 4 Sept
- Meals, unless otherwise stated

For more details about IGBC and SGBW as well as registering for IGBC with the IGBC registration code, please visit <u>www.sgbw.com.sg</u>.

	√ to register	Early Bird (Before 20 July)	Normal Fee
Workshop (1 Sept at Park Mall)		SGD\$200 (SEAS Member) SGD\$250 (Non-Member)	
Forum (3 Sept at MBS)		SGD\$300 (SEAS Member) SGD\$400	SGD\$400 (SEAS Member) SGD\$500
Forum & Workshop		(Non-Member) (Non-Member) SGD\$500 (SEAS Member) SGD\$600 (Non-Member)	
*IGBC (Tours are not included)		SGD\$600 (Usual price: SGD\$1,000)	

\* Applicable to participants of Sustainable Laboratories Forum ONLY

\*\* Fees are subjected to 7% GST

- \*\* Payment for <u>forum and workshop</u>: Crossed cheque payable to -Sustainable Energy Association of Singapore Mailing address: 9 Penang Road #08-02 Park Mall Singapore 238459
- \*\* Payment for IGBC: Pay online upon registration

REGISTRATION FORM 🗌 Yes! I would like to register for this programme 🗌 I am unable to attend but please put me on our mailing list								
PARTICIPANT'S DETAILS Number o			of Del	legates	Fees Payable			
1	Name (Dr/Mr/Mrs/Ms)   Mobile No		NRIC / Passport Designat		ion			
			Emai	Email		PEB No		
2				NRIC / Passport	Designat	Designation		
			Emai	mail		PEB No		
ORGANISATION'S DETAILS								
Company Name								
Company Address								
Contact Person				Designation		ontact No		
Email				Fax No				



## Singapore Sustainable Laboratories Group

A committee under the Sustainable Energy Association of Singapore, partnered with the Energy Research Institute @ NTU.

#### How to join?

Join us as a member of SEAS and indicate on your form that you'd like to be a part of the Sustainable Laboratories group. Visit <u>www.seas.org.sg/membership/joinseas</u>

#### Benefits:

- Knowledge exchange and discussion on topics relevant to sustainable laboratories and high-tech facilities in tropical climates though regular meetings and newsletters
- Networking opportunities with local and international industry experts
- Stay connected on Singapore specific and regional topics through dialogues with government agencies
- Complimentary access to other SEAS committee meetings and member only events. Other SEAS committees include: Clean Energy, Energy Efficiency, Sustainable Mobility
- Get connected to government finance assistance schemes and private financing
- Full and Affiliate members only: Complimentary display and management of your company name, logo and profile on the Singapore Sustainable Energy Directory

#### **Contact Us**

Phone:63379886 Email:info@seas.org.sg Web:seas.org.sg/about-seas/our-committees/sustainablelaboratories

### Main Organisers

## Singapore Sustainable Laboratory Group (S2Lab)



#### **Supporting Partners**











