



the ASHRAE times

May 2005

President's Messages



This is the first newsletter published under the new term of 2005-2006 Board of Governors.

The theme of the year for ASHRAE Singapore Chapter:

"Improve quality of life with Sustainable Environment"

In this new millennium, the earth is in the state of growing concern on the depleting earth's resources, detrimental effects of unsustainable developments, and 'destabilising' climatic effects on the environment. These global challenges require local actions.

This year, Chapter will focus various information sharing in forums such as evening Technical Talks and organised Seminars. The topics comprise energy efficiency, water management, indoor air quality, climate change: its impact and concern, and sustainable environment - efficient use of energy and materials (recyclable and biodegradable).

With the above initiatives, the Chapter would like to complement such activities with other organisations, such as Building Construction Authority, National Environment Agency, Singapore Environment Council, and Spring Singapore.

Our web site www.ashrae.org.sg has been revamped to be more user friendly, updated the Chapter's latest activities, and created web links to Region XIII's other 5 Chapters (Malaysia, Hong Kong, Taiwan, Thailand and the Philippines) and also include ASHRAE Society.

We welcome any suggestions to make our Chapter's newsletter and web-page more interactive with members and friends.

Have a pleasant reading.

Albert Sin Yew Tek
President, 2005-2006
ASHRAE Singapore Chapter

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Singapore Poly 8th Cleanroom Seminar 2004 Latest Developments On Cleanroom Technology In Pharmaceutical and Semi-Conductor Industries

by Faizan Fandi

SP 8th Cleanroom Seminar 2004 was jointly organised by Singapore Polytechnic School of Mechanical and Manufacturing Engineering and ASHRAE Singapore Chapter on 25 September 2004 at the Novotel Apollo Hotel from 9.00 am to 12.30 pm. The event was a resounding success with almost 130 participants from the industry and polytechnic.

The speakers include Peter Maguire and Raymond Thomas from Lighthouse Worldwide Solutions, Holger Engel from Siegle + Epple Asia Pte Ltd and Dr. Choi Kyung-Ju from AAF International. The topics covered range from the monitoring of a flat panel display facility, FDA requirements and cGMP guidelines, filter media and its latest trend, and particle counter for cleanroom.

At the end of the presentation, Dr. Ng Eng Hong chaired the question and answer session where speakers tried their best to answer participants' interesting questions.



Distinguished speakers....



answering session...



Members Nite & Technical Talk



by Siva

On the 8th Nov 2004, ASHRAE Singapore organized a technical talk cum Members' Nite. The event was held at Novotel Apollo Hotel.



Members registered their names before they proceeded to the Kintamani Restaurant at the Hotel where they savored the delightful spicy cuisine of Indonesia.

After the buffet, all members attended a technical talk by Dr Max Sherman who is a member of the Air Filtration Institute of America. He gave a short technical talk entitled "**Ventilation : The Once and Future King**"



The talk began by looking back at ventilation from a historical vantage point of why we ventilated and how it had been done from long ago until recently. The talk then touched on the current status of ventilation and mentioned some of the key ASHRAE standards.

The talk concluded with a description of that part of the International Energy Agency known as the Air Infiltration and Ventilation Centre. Singapore will be poised to become the newest member of the AIVC, which provides a wide variety of technical information and other resources for member countries related to ventilation.



[Dr Max Sherman \(4th from left\) posed with Chapter's members](#)



ASHRAE Distinguished Lecturer Talk by Dr. Branislav Todorovic



Branislav Todorovic, Ph.D., Professor of Mechanical Engineering at the University Belgrade, was Visiting Professor at the University of Vienna, as well as at Universities of California in Berkeley and San Jose and at the University of Kansas. He specialized in HVAC in Germany as Humboldt Scholar at the Technical University of Berlin. He is Fellow of ASHRAE, current Distinguished Lecturer of ASHRAE, former Director of ASHRAE board, former president of European Society for HVAC "REHVA". He is also a Member of Russian Academy of Architectural and Building Sciences; Hungarian Society of Building Science; Serbian Engineering Academy. He is Vice President of International Institute of Refrigeration in Paris, Editor-in-chief of International Journal - Energy and Buildings. Recipient of ASHRAE awards for international activity, distinguished service, achievements in teaching, and best symposium paper.

By Dr Chandra Sekhar

On 31st March 2005, ASHRAE Spore invited Dr Branislav Todorovic to give a lecture on the topic : "**Building facades and energy needs - new European directive to predict energy needs in early stage of building design.**" The event was held at Chengdu Restaurant, Hotel Grand Central.

Professor Todorovic began his talk by giving an account of the global energy situation where he observed that industrialised countries (OECD and central Eastern Europe) accounted for 61% of the world's energy consumption.



He shared that population growth and economic developments were the two main forces driving the energy demand growth. Based on current trends, whilst the energy demand for developed countries is expected to stabilise at around 2000 level of 6 Gtoe, the demand for developing countries is estimated to almost double from a 2000 level of 10 Gtoe to 20 Gtoe by 2020.

He outlined 3 key energy R&D initiatives as being strategic and important:

- a) to improve the efficiency of primary and secondary energy production and final energy use in buildings, municipalities, industry, transport and agriculture,
- b) to develop new energy technologies and systems and
- c) to reduce the CO₂ and other green house gases (GHG) emissions and environment pollution.

He shared some examples of energy efficiency techniques adopted in Europe in a predominantly heating context and presented a new European recommendation to limit energy needs related to primary energy. Finally he presented an interesting view related to the improvement of the thermal performance of buildings by drawing an analogy with the human behaviour.



President Mr Chua giving away Certificate of Appreciation to Dr Branislav Todorovic



Leadership Interview: Mr Raymond Wong



(President 1992- 1993)

Mr Raymond was born in 1953 in Singapore with one other brother and sister in he family. Studied in St Andrew's Primary/Secondary School and obtained B.Eng (Hons) from University of Singapore in 1976. Mr Raymond did 2 years of military service in RSAF and started work in Applied Research Corp, Singapore in 1978. He is currently married to Kwai Yeng with 3 children

by Tan Yong Hoa

1. What attracted you to engineering and/or the HVAC industry?

Basically , I like mechanical stuff and I have many of family members working in building industry. Besides, I always wanted to look into energy efficiency in buildings which was the in-thing in the '70s.

2. What was your first job in the HVAC industry and where did it lead?

My first job was with firm of building services consulting engineers, Monenco Asia, where I learned the practical side of HVAC and made friends with many of the ASHRAE chapter members there.



3. Describe the industry at that time. What were the challenges that you and your colleagues were facing?

Industry was in a boom and had much opportunity to design systems for commercial, industrial and institutional buildings and supervise during construction.

4. How and when did you get started in ASHRAE?

I was introduced by PS Loh, a founding member and past president of Singapore chapter and then I get started in ASHRAE

5. What was your ASHRAE chapter experience?

It was fun working with an enthusiastic team of Chapter officers.

6. What were the major issues facing the industry at that time?

Energy conservation and energy efficient buildings were the major issues.

7. How was *SAAM (Singapore Association of ASHRAE Members) interacting with the public?

Chapter organized many public seminars and chapter members actively engaged in code development.

8. On what *SAAM committees did you serve?

I served Education, Publicity, Programme at that time.

9. What people stand out as influences on you?

Past Chapter Presidents TY Bong(Year 1989-1991) and PS Loh (1985-1986)

10. What events changed *SAAM?

(* SAAM changed its name to ASHRAE Singapore Chapter(ASC) in 2001)

Organising the ASHRAE FE Conference and the Asia Pacific Conference helped to propel the Chapter into prominence in the region. Besides, * SAAM also improved linkage with other Chapters-at-large in Malaysia, Hong Kong and Taiwan.



11. **What events changed the industry?**
Building industry started to lowdown in mid 1980s.
 12. **What has ASHRAE meant to the industry's growth?**
ASHRAE is the leader in the science and art of refrigeration and air-conditioning.
 13. **What advise would you give to a young person entering the HVAC field?**
Be curious and relate the theory to the practice.
 14. **Did any humorous events take place during your association with ASHRAE?**
During the 1987 FE conference, the chapter hosted a Chinese dinner at the old Cathay Restaurant in the now demolished Cathay Building. Some of the Society officers at my table were quite amused by the sight of the fried chicken served whole - with head and everything that one person produced his telephoto -lens equipped SLR camera for a close-up souvenir shot of the dish! Certainly not your usual way to serve your southern fried chicken.
 15. **What other interests and/or hobbies do you have?**
A quiet reading on current affairs, and history.
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ITE-ASHRAE has embarked in numerous community service and air conditioning project since its formation on year 2002. The project includes air-conditioning units servicing at Jamiyah Old Folks Home ,Apex Harmony Lodge, Keng Chiew Lodge and etc. Besides this, ITE-ASHRAE has also embarked on teaching air-conditioning and basic skills to a group of students from the Probation Service Branch from the MCYS (Ministry of Community Service, Youth and Sports)

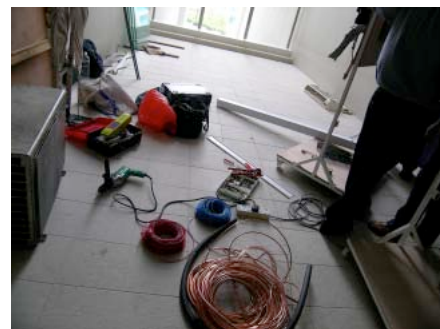
Yao Xing

ITE YOUTH PROJECT

During the one week of vacation in March 2005, students spent their time fabricating metal supporting brackets . The students from ITE-ASHRAE obtained the fund from the school to fabricate metal brackets as mounting supports for 2 sets of split type air conditioning units .The split units were donated by Klima Air Con.

The students installed the Toshiba air con onto the metal brackets. These sets of air con units were then been transported and donated to Delta Senior School of APSN situated at Delta Avenue.

Mr Hairul from Klima Air Con was very excited with the project and said candidly, "This project has definitely boosted the students' self esteem as they realize they can actually use their skills to help people as well. Most importantly, they have learned how to cooperate and ensure the air con is actually working fine before they send to Delta School".



Pictures taken during the students working on the installation of air-con split units



Coming Events....

23rd Annual Installation Dinner and Dance

The ASHRAE Singapore Chapter is holding its 23rd Annual Dinner and Dance at the Pan Pacific Hotel on Saturday, 14 May 2005, from 7.00pm to 2.00am.

This will be a good occasion for you to renew acquaintances, establish new contacts and enlarge your networking as we are inviting Chapter members, consultants, developers, manufacturers and suppliers to attend.

Please visit our web-site for details: www.ashrae.org.sg

ASHRAE Distinguished Lecturer Talk

Presented By [Mr. Forrest B. Fencil](#)

Topics : [UVC Technology for AHU Capacity, Maintenance, and IAQ control](#)

Date : 16 May 2005 (Monday)

Time : 7.00 pm to 10.00 pm

Venue : FURAMA RIVERFRONT SINGAPORE

Address : 405 Havelock Road, Singapore 169633, Tel : 6733 2081

Fees : **Free of charge to registered ASC members (by 10 May 2005)**
Guests invited by ASC members to pay \$30.00

Meals : Buffet dinner will commence @ 7.15 pm

CPD Programme : To be confirmed

Technical Talk (1.5 hour) and Q&A (0.5 hour) will commence at 8.00 pm

Please visit our web-site for details: www.ashrae.org.sg
