



February 2004



**Book on Practical Research Methods to be launched in April 2004**

The second edition of Associate Professor Willie Tan's highly regarded book on Practical Research Methods will be launched in April 2004. Published by Pearson Prentice Hall, the book provides practical guidelines on research, including problem formulation, developing the hypothesis and research design, methods of data collection, data analysis, developing the conclusion, and publishing the report. A distinctive feature of the book is its comprehensive coverage and synthesis of statistical tools from univariate to multivariate data analyses. The book is highly readable and is pitched at senior undergraduate and graduate levels. It contains many examples drawn from the built environment to guide the student along.

The book has received excellent reviews. Professor Raymond Nkado, Dean of Faculty of Engineering and the Built Environment at the University of Witwatersrand, describes it as "as essential read" by presenters of research methodology classes and "an excellent text for newcomers to the research scene such as honours students, and for veterans who need to refresh their repertoire of research techniques." Associate Professor Mohan Kumaraswamy of the University of Hong Kong says the book should "prove valuable to those who need a quick overview and a lucid introduction to a comprehensive range of research techniques, as well as to those in search of more detailed knowledge, including tips and traps in the application of specific techniques." For enquiries, contact Assoc Prof Willie Tan at [bdgtanw@nus.edu.sg](mailto:bdgtanw@nus.edu.sg).

**Research in Construction Management and Economics (CM&E)**

**Findings of research on developing world class firms with strong export capability** ([more>](#))

**Research in Total Building Performance (TBP)**

**Researchers to study the impact of draft on the thermal comfort and perceived air quality of people acclimatized to the tropical climate**

This research will lead to new knowledge to augment existing draft models, or even the development of a draft rating model for the tropics. The existing draft models provide draft rating for "whole body" sensation, but recent developments in techniques of achieving thermal comfort and acceptable indoor air quality in the breathing zone, notably personalised ventilation, has made the exploration of localised draft phenomena necessary, particularly in the facial regions.

For more information, email Assoc Prof Tham Kwok Wai at [bdgtkw@nus.edu.sg](mailto:bdgtkw@nus.edu.sg).

**Researchers embark on innovative air-conditioning systems research**

The average estimates of energy consumption for air-conditioning in commercial and office buildings in Singapore are in the vicinity of 50% to 60% of the total building's energy consumption. It is thus logical to perceive energy efficiency in buildings in the context of optimizing the air-conditioning energy consumption and in providing an ideal indoor environment from thermal comfort and indoor air quality perspectives, which are essentially aimed at improving the health, comfort and productivity of the workforce. A research project titled Field Environmental Chamber Evaluation of Energy Efficiency Potential through Innovative Air-conditioning Systems in the Tropics has been launched to study this.

The research aims to fully exploit the energy efficiency potential of cooling dehumidifying coils appropriate to the tropics. A series of parametric tests spanning several operating conditions of the High Driving Potential cooling and dehumidifying coil with energy recovery features is envisaged. The research will be carried out in the School's recently completed Field Environmental Chambers.

For enquiries, please contact Assoc Prof Chandra Sekhar at [bdgscs@nus.edu.sg](mailto:bdgscs@nus.edu.sg).

**Conferences**

**International Symposium on Knowledge Construction well attended**

**Conferences**

**Healthy Buildings 2003 Conference a success**

Healthy Buildings 2003, the 7th triennial International Conference of the International Society of Indoor Air Quality and Climate (ISIAQ) was held at the National University of Singapore (NUS) in Singapore between 7th and 11th December 2003. It was jointly organised by the Department of Building of NUS and ISIAQ. Convened for the first time outside its traditional European-American circuit, this signifies the international recognition that healthy buildings and indoor environments are as much needed and desired in the developed and developing worlds, across all climatic



**Her Excellency Ms Stella Sigcau (in blue), Minister for Public Works of the Republic of South Africa, was the Guest-of-Honour of the symposium.**

The Joint Symposium of the three CIB Working Commissions W55 (Building Economics), W65 (Organisation and Management of Construction) and W107 (Construction in Developing Countries) was held from 22 to 24 October 2003 at The Pan Pacific Singapore.

One hundred and sixty-six participants from 27 countries (including Singapore) attended the symposium. The participants comprised a good mix of researchers based at universities, research institutes and centres; top officers of government departments and statutory agencies; practitioners leading or working with consultants and contractors, and representatives of professional institutions. This is one of the largest gatherings of the CIB outside its triennial congresses. The papers presented at the symposium included 5 keynote papers and 143 technical papers. Each of the papers was commented upon by a selected rapporteur, who presented a Rapporteur's Report during the last session of the symposium.

Her Excellency Ms Stella Sigcau, Minister for Public Works of the Republic of South Africa, was the Guest-of-Honour of the symposium. The High Commissioner of South Africa in Singapore, Mr Fanus Schoeman, and NUS Deputy President Dr Varaprasad were also present at the opening session. The 5 keynote speakers were

- i) Dr Erkki Leppavuori, Director-General, VTT the Finnish National Research Institute
- ii) Dr Wim Bakens, Secretary-General of the CIB
- iii) Dr Frits Scheublin, Chief Engineer, HBG (among the top 7 largest international construction firms) and Professor, Eindhoven Technical University
- iv) Professor Fred Moavenzadeh, Massachusetts Institute of Technology, USA
- v) Mr Yusuke Yamazaki, Shimizu Corporation, Japan.



### **Department welcomes first batch of January intake for MSc (Project Management)**

This month, the Department welcomes the first batch of the January intake for its internationally recognised MSc (Project Management) programme. Since its inception in 1986, the programme has continued to attract a large number of local and overseas applications from reputable universities for its limited places. The programme is conducted by senior faculty and practitioners.

As Programme Director Associate Professor Willie Tan explains, "project management blends know-how with know-why, and we want to have a

regions. HB2003 adopts the theme "energy efficient healthy buildings", cognizant of the need to achieve and sustain healthy environments through appropriate design, technologies and management in responsible ways.

The aims and scope of HB2003 were:

- To increase the awareness of healthy indoor environment and energy-efficient building globally, including a special theme for developing countries.
- To create a multi-disciplinary forum on the development and advances made in the field of indoor air quality and climate to achieve healthy, comfortable and productive environments.
- To allow interactions among scientists, policy makers, medical, legal and building professionals on the application of state-of-the-art research to practical problems encountered in the design, construction, operation and retrofitting of buildings.
- The scope of the Conference covers all building types in all climatic conditions.

HB2003 was officially opened on 7 December at the University Cultural Centre, by Guest-of-Honour Mr Matthias Yao, Senior Minister of State, Prime Minister's Office and Deputy Secretary-General, NTUC. In his Opening Address, Mr Yao challenged the international audience of experts in indoor air quality to consider a new movement or school of thought in the design of indoor spaces for the 21st century. A specially commissioned choreographed dance depicting the vibrancy and energy of the indoor air quality movement delighted the audience.



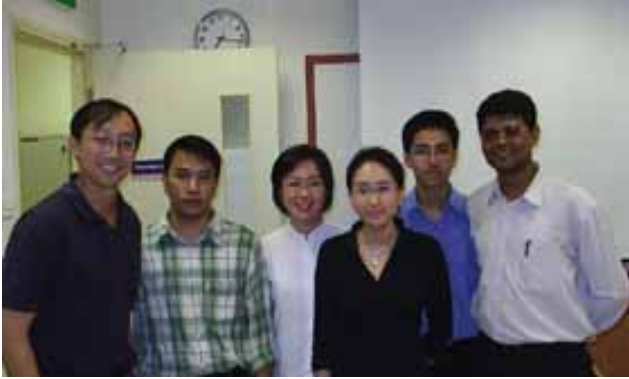
**The finale of the specially choreographed dance depicting the vibrancy and energy of the Indoor Air Quality movement.**

Professor Ole Fanger, Technical University of Denmark and Mr Hal Levin, Building Ecology Research Group, USA delivered two plenary lectures during the opening ceremony and echoed the Senior Minister of State's call for a paradigm shift in our thinking towards creating excellent indoor environments. A keynote paper on the topical theme of SARS, which generated tremendous interest and background to a SARS workshop, was delivered by Dr Ooi Peng Lim, Ministry of Health and Adjunct Associate Professor of Department of Building, NUS. Professor Lidia Morawska, Queensland University of Technology, offered insights on how land and urban development contribute towards making houses healthier. The closing plenary paper was delivered by Professor Jack Spengler, Harvard School of Public Health, on 11 December during which he charted the vision and future directions for the international research community in the area of indoor air sciences as well as the practitioners in this field.

Additionally, almost 350 papers from 45 countries documenting the research, thinking, innovative solutions and technologies for the achievement and sustenance of energy-efficient healthy buildings were presented and published in three volumes of proceedings. Whilst 40% of the papers presented at HB2003 relate to the study of fundamental issues of indoor contaminants including thermal comfort aspects in THEME 1, 27% of the papers provide an insight

mix of capable academics and highly qualified practitioners to continue to attract good students."

Because of the overwhelming demand, the programme will have two intakes each year, in January and July respectively. It is the first and only MSc programme within the School of Design and Environment to offer two intakes a year. The new students are looking forward to learn about the intricacies of project management. For Mr Tan Howe Cheng, Howie who graduated with a Bachelor of Civil Engineering from Nanyang Technological University and is working as an Engineer for CH2M HILL Singapore, said the programme "will offer him a greater insight and understanding of the management of every aspect of a project, big or small, during its life cycle from the birth of an idea to the actual physical and successful fruition of that idea."



The MSc (PM) students admitted in January 2004. From left: Tan Howe Cheng, Win Htut Aung, Irene Sim, Chan Sook Mang, Aung Wunna and Biyay Joseph.

into practical solutions across different climatic conditions in THEME 2. Environmental health related studies that impact upon occupant perception and work performance constitute 17% of the papers and are presented in THEME 3. Considerations from practitioners' viewpoint are addressed in another 14% of the papers in THEME 4. The perspectives of the developing world are presented in a small number of papers in THEME 5.

## Alumni Matters

**Seminar on "Design & Build Contract" to highlight the success factors of a D&B project** ([more>](#))

## Events

**Public Lecture on "New Naturation Techniques for the Greening and Cooling of Building Surfaces"** ([more>](#))

### **KCL-NUS MSc (Construction Law & Arbitration) Programme organises Preview Seminar**

The KCL-NUS joint programme successfully completed its first semester last year and started its first weekend session in Semester 2 on 9 January 2004. The programme is currently organising a Preview Seminar at the start of the second weekend session, with details as follows:

**Date:** Friday, 13 February 2004

**Venue:** SDE1, 4th Floor, Seminar Room 1 (SR1)

School of Design and Environment

National University of Singapore

4 Architecture Drive, Singapore 117566

**Time:** 6pm to 7.30pm

#### **Agenda**

6–6.45pm: Presentation on the KCL-NUS MSc programme

6.45–7.30pm: Buffet reception

Speakers at the Preview Seminar will include Mr Philip Britton and Mr Nicholas Gould from the Centre of Construction Law, King's College London, and Dr Anne Magdaline Netto (Programme Director) and Assoc Prof Philip Chan from the Department of Building, National University of Singapore. Attendees will not only have the opportunity of finding out about the programme from both KCL and NUS teaching staff but will also be able to meet and speak with the current students on the programme during the buffet reception.

This e-newsletter is produced by the Department of Building, NUS. Please send your comments and enquiries to: [bdgyeoj@nus.edu.sg](mailto:bdgyeoj@nus.edu.sg).

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