



Department secures funding for Energy and Sustainability Research Unit

The department has secured a funding of about \$400,000 from the Economic Development Board under its Locally-Based Enterprise Advancement Programme (LEAP) to support the establishment of an Energy and Sustainability Research Unit within the department's Centre for Total Building Performance (CTBP). The grant will fund the activities of the Unit for a two-year period.

The objectives of the Unit are to establish a training curriculum and a national certification system for energy engineers and managers; develop and implement a national accreditation system of Energy Services Companies (ESCOs); organise events to educate professionals, industries and financial institutions; and establish a measurement and verification protocol on energy utilisation for use by ESCOs in Singapore. In addition to supporting research leading to nationally significant results, the grant will enable the department to collaborate with established international institutions and researchers in the assessment of buildings for their energy performance.

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Picture shows (from right) Associate Professor Lee Siew Eang, Director of CTBP, receiving the award from Mr Raymond Lim, Minister of State, Ministry of Trade and Industry. On the left is Mr Ko Kheng Hwa, Managing Director of Economic Development Board.



Research on the effect of Urban Heat Island showcased in science & technology event

Researchers currently embarking on a research project to study the Urban Heat Island effect and ways of reducing it showcased their research in X-Experiment, a 3-day science carnival organised by A*STAR and Singapore Science Centre as part of its science.03 activities. Previously known as Techmonth, science.03 aims to enhance the profile of the R&D community by according greater recognition, as well as providing an excellent opportunity to showcase the latest technology and research. For more information on Science.03, visit <http://www.sciencemonth.org.sg/>.

Department embarks on research initiative with Tianjin University of Technology

The department commenced research collaboration with the Faculty of Design and Environment, Tianjin University of Technology on research in the Management of Public Sector Projects – China and Singapore Models. This initiative also involves Davis Langdon and Seah Singapore Pte Ltd, the largest firm of construction cost consultants in Singapore, as a collaborator. The objectives are to examine investment policy and decision-making processes for public sector projects in China and Singapore; determine procurement practices for professional and construction services in the two countries; evaluate modes of contractual forms employed in the two countries; and compare the approaches and practices adopted in both countries and highlight elements of best practice.

Research in Construction Management and Economics (CM&E)

Researchers to look at productivity of Singapore's construction industry

The productivity of the construction industry in Singapore is low in comparison with its counterparts in advanced countries and other sectors in the economy. The rate of growth of productivity is also low. This issue has been of concern since the mid-1980s. A research project involving two NUS departments and industry collaboration has been launched. The aim of the proposed research study is to formulate a suitable method for accurately estimating the productivity of the construction industry in Singapore. The objectives of the study are, among others, to study methods used for estimating the productivity of the construction industry in Singapore, and for each method, assess its level of accuracy; identify its strengths and weaknesses; propose modifications to it; and set benchmarks for levels of productivity of the construction industry in Singapore, and its rate of growth.

The main research team for the project will be drawn from the Departments of Building, and Civil Engineering at NUS. The project will involve the participation of the Singapore Contractors Association Ltd. (SCAL). The Building and Construction Authority (BCA) will support the project with funding and necessary data.

Research in Total Building Performance (TBP)

Study on critical heat flux exposure to radiant heat ignition of solid wood in progress

Minimum heat flux exposure sets the minimum thresholds for pyrolytic product decomposition under atmospheric room conditions. It defines the flashpoint critical for the control of room fires. Most published research has dealt with the ignition of wood, but there has always been limited information to establish a validated minimum heat flux. Most reported tests, whether practical or experimental, have been much too brief to produce useful data on this point. This study investigates the critical heat flux exposure to radiant heat ignition of solid wood in enclosure fires. It challenges the fundamentals of heat ignition and traditional standard fire tests.

Events

Seminar on amendments to Acts

The **Seminar on the Impact of the Latest Amendments to the Building Control Act, the Architects Act and the Professional Engineers Act** was held on 18 October 2003 at the School of Design and Environment, from 9.00 am to 1.00 pm. The speaker is Assoc Prof Philip Chan from the department. Some 170 people attended the seminar. For the seminar flyer and abstract, click here: [\(more>\)](#)

Academic Matters

NUS recognises excellence in teaching

Assoc Profs **Low Sui Pheng and Philip Chan**, and **Dr Florence Ling Yean Yng** were named NUS Excellent Teachers for Academic Year 2002/2003. Selection for the award is based on student feedback and nominations from the departments and faculties. Students' feedback, peer review reports, and the teaching materials and assessment tasks designed by the staff are also taken into consideration. Well done, Profs Low and Chan, and Dr Ling.

Classes for KCL-NUS joint MSc programme in full swing

The pioneer batch of students for the KCL-NUS MSc in Construction Law & Arbitration had its first weekend of classes from 25 to 28 July 2003. Mr Philip Britton, Director of the Centre of Construction Law and Management, and Prof Phillip Capper conducted these classes together with the department's faculty comprising Dr Anne Netto, the Programme Director, and Assoc Profs Philip Chan and Christopher Leong. The second session of classes was conducted from 29 August to 1 September and the third session from 10 to 13 October 2003. For enquiries, please contact Ms Anita Teo at tel. 6874 5115, email bdgthla@nus.edu.sg.

Alumni Matters

Alumnus wins prestigious scholarship

Jonathan Lian Khin Ming (Class of 2000) was awarded a prestigious scholarship administered by the British Council. Funded by the Foreign and Commonwealth Office, the **Chevening Scholarships** offers unbonded scholarships to promising young Singaporeans holding at least an upper second honours degree. Applications are open to those who have not studied in Britain previously and who wish to undertake up to one year's postgraduate study there.

The scholarships are funded by the British Government and through sponsorship from companies based in Singapore. In selecting the recipients, the panel of judges looked for, amongst other things, candidates who graduated with strong academic results and a strong desire to contribute to the socio-economic development of their country through implementing the new skills and knowledge acquired in the UK. Those who were established in their careers, with a track record of excellence and achievement and had the potential of being a leader in their chosen fields, also stood in good stead.

Jonathan Lian graduated with a First Class Honours in Building. He is with CPG Consultants Pte Ltd, and will be studying for an MSc in Airport Planning & Management at Loughborough University. Together with 12 other recipients, Jonathan received his scroll from HE Mr Alan Collins, British High Commissioner to Singapore, on 20 August at Eden Hall.



Preparations for Healthy Buildings 2003 underway

The Department is proud to host the 7th Healthy Buildings conference between **7 to 11 December 2003**. This is the first time that the prestigious once-in-three-years conference is being hosted in the tropics. Healthy Buildings is the conference of the International Society of Indoor Air Quality and Climate (ISIAQ) of which the world's top researchers and practitioners in the field of the indoor environment are members.

Healthy Buildings 2003 will provide a state-of-the-art perspective on ways and means of providing safe, healthy and productive indoor environments, and an interactive forum to identify strategies that demonstrate progress toward the goal of achieving energy efficient healthy buildings. Structured as a Working Conference the programme includes plenary sessions, technical papers and workshops. Keynote addresses by the foremost researchers and practitioners (including those involved in international standards such as ISO and ASHRAE standards) lead the deliberations on the major issues, challenges and solutions to achieving energy-efficient healthy buildings.

The conference aims to increase the awareness of healthy indoor environment and energy-efficient building globally, and 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. Additionally it will 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 conference will be held in NUS premises where more than 400 papers from 45 countries will be presented. Further information is available at the conference website: www.hb2003.org. ([more>](#))



International symposium on knowledge Construction

The construction industry has been in the news in recent months with reports of bankruptcies, cash flow difficulties, disputes over claims and contracts, and failure to perform. Our construction firms seem to be finding it difficult to cope with the highly fluid and competitive environment brought about by globalisation. How can we overcome these difficulties? Are these peculiar problems? How are industries elsewhere faring? What can we learn from them?

The department will host a major international symposium in collaboration with the International Council for Research and Innovation in Building and Construction (CIB), which addresses issues in the construction industry at The Pan Pacific Singapore from **22 to 24 October 2003**. The symposium will be opened by the Guest-of-Honour, Her Excellency Ms S.N. Sigcau, Minister of Public Works, Republic of South Africa at the Pacific 3 Ballroom, The Pan Pacific Singapore at 9.00 am on 22 October 2003.

The symposium, with its main theme as "Knowledge Construction", will address the transition of the mature construction industry into the knowledge age, and the challenges that this transition will involve.

Some 150 papers and 5 keynote papers will be presented at the Symposium. The authors are from 30 countries including Australia, Brazil, Canada, Chile, China, Croatia, Estonia, Finland, Germany, Holland, Hong Kong, Israel, Japan, Malaysia, the Netherlands, New Zealand, Portugal, Singapore, Sri Lanka, Sweden, Switzerland, Taiwan, Thailand, Trinidad and Tobago, Turkey, the UK, the USA and some African countries including Botswana, Nigeria, South Africa and Tanzania.

For enquiries, please send an email to the symposium secretary, Elsie at bdglime@nus.edu.sg.

More information can be obtained from the symposium website at <http://www.bdg.nus.edu.sg/ickc>.

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

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