

## Energy Institute (Hong Kong Branch) 能源學會(香港分會)

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**A Seminar jointly held by:**  
**Hong Kong Institution of Engineers (Gas and Energy Division)**  
**The Energy Institute (Hong Kong Branch)**  
**Chartered Institution of Building Services Engineers (Hong Kong Branch)**

### **Report on Energy Responsive Building Design in Australia and Turkey**

Dr. F. Nur Demirbilek, senior lecturer of Queensland University of Technology, was invited to conduct the technical talk which had been held in the evening on 16 July 2007. This activity is jointly held by Hong Kong Institution of Engineers (Gas and Energy Division), **Energy Institute (Hong Kong Branch)**, and Chartered Institution of Building Services Engineers (Hong Kong Branch). In this activity, 35 members of different professionals are present. They are working in academic, government, utilities, developers, consulting engineers, contractors, property management and other building professional disciplines.

In the Technical Talk, Dr. Demirbilek had introduced some basic methods applying to achieve building energy saving by various design approaches. She had explained some present energy responsive designs using in the existing buildings in Australia and in Turkey. Energy conservation achievements by introducing methods to utilize the natural renewable form of energy resources had been highlighted. An example used in this introduction was the “Michelle-Trombe Wall” application on the external walls of the Government Observatory Building in Turkey. Progress of her research on this application in relation to the building green house construction had also been reported. Another highlight in the Talk was the energy responsive designs applied in a low-rise building construction in Australia. While described the major design features of this building, she had briefly introduced some Australian Government policy launched to encourage the building users in conserving natural resources in their daily living and operations. For example, the Government will subsidize the building user a fund to build some building feature for cycling of rain water applied to supply cold water for sanitary purposes.

Some questions were raised by the participants after her presentation. These questions were mainly concerned about the application of computing facilities in the scheme designs. Another one was the concern of funding conditions of her presented progressing research. She had explained that the presented examples concerns about the principal of building designs. Computing facilities would be useful at various stages of a project that it can be

used in the feasibility evaluation of the applied design methods, or it can be used in the building automation and control facilities which facilitates the process of introducing recycling energies in the building operations.

While Dr. Demirbilek had introduced some energy responsive building design approaches applied in Australia and Turkey, she had pointed out also the importance of protection for the built environment. It will be an obligation of all building professionals and building occupants themselves.



Ir. P L Yuen (L), Chairman of Gas & Energy Division, HKIE presents souvenir to Dr. F. Nur Demirbilek (R) after the technical talk