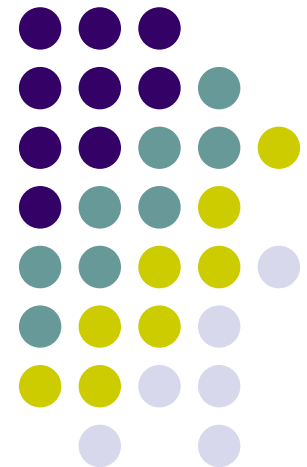


Building Energy and Environmental Technology Research Unit

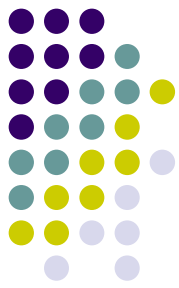
T.T. Chow
School of Energy & Environment /
Division of Building Science & Technology
City University of Hong Kong



BEETR_U (“BE TRUE”)



established in December 2006 as a response to the EMSD initiative of establishing their internet website on energy efficient technologies.



Areas of Interest

- Environmental control: HVAC&R technology
- Low-energy building design and sustainability
- Building energy use and management
- Human health and comfort science
- Building simulation and optimization techniques

Eco Home Assessment

<https://www.clponline.com.hk/myHome/GreenLivingIdeas/EcoHome/Scorecard/Pages/PhD.aspx>

CLP *Online*

CLP 中電

The Concept of Eco Home Scorecard

What is an eco-friendly home?

- It is an ideal habitat with environmentally-friendly features that enable a comfortable balance between "Energy Efficiency" and "Quality Healthy Living". Eco Home PhD extends a convenient online evaluation on your home based on these two key elements. The service also comes with a collection of green-living tips which will help facilitate your households' transition to sustainable living. The benefits of Eco Home PhD are not limited to individual users either, as it contributes to the overall reduction of CO₂ and moderates the impacts of climate change.

How are assessments of eco-friendly homes conducted?

Your household's energy consumption habits are good indications of performance in energy efficiency, whereas the Indoor Environmental Quality (IEQ) index illustrates the achievement of your home in quality healthy living. IEQ is the performance indicator of choice in Europe, and its four attributes are thermal comfort, indoor air quality, daylight availability, and quietness.

The Eco Home PhD Project

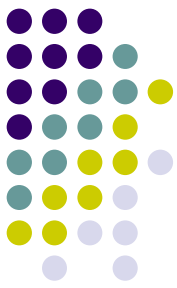
The objective of this project is to develop an ideal home energy usage model customised for Hong Kong residential households. Experts from the Division of Building Science & Technology at City University of Hong Kong spent six months researching the impact of energy efficiency and quality healthy living on 12 different architectural designs, and operated on EnergyPlus, a pioneer software developed by the U.S. Department of Energy, for a thorough data analysis.



Members



Academic staff	Supporting/ Research staff	Research students
Dr. T.T. Chow Dr. Apple L.S. Chan Dr. Square K.F. Fong Dr. G.S. Huang Dr. John Z. Lin Dr. Norman C.F. Tse	Mr. John Y.C. Chan Mr. Alan M.L. Fong Dr. C.K. Lee Dr. Peng Li Dr. Lin Tian	Shao-ting Dong Chun-ying Li Hui Long Yau-kit Mok Jone Tin-yan Poon Ka-kui Tse



Collaborating Partners

- Prof. J.A. CLARKE
University of Strathclyde, UK
- Prof. B. GIVONI
University of California (Los Angeles), USA
- Prof. Jie JI
University of Science & Technology of China
- Prof. Loi-lei LAI
City University London, UK
- Prof. Qiu-wang WANG
Xi'an Jiatong University, China
- Prof. Guang-qiang ZHANG
Hunan University, China

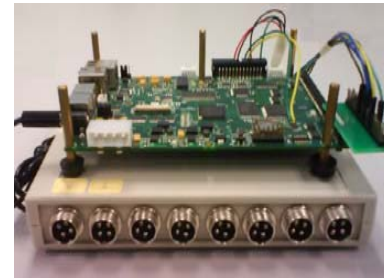
Building and System Energy Analysis



- Typical weather year
- Split-type air-conditioner heat dissipation
- District cooling system
- System optimization studies
- Building and plant modeling
- Electrical efficiency and power quality



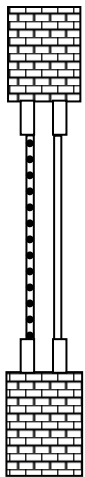
<http://www6.cityu.edu.hk/see/BEET/BEET.htm>



Clean Energy Utilization



- Solar glazing
- Solar utilization
- Hybrid photovoltaic/thermal technology
- Solar thermal system

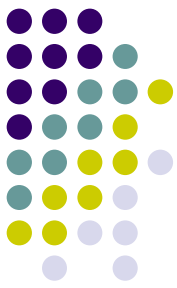


Building Ventilation and Airflow



- Studies on airflow and smoke dispersion
- Innovative ventilation for sustainability
- Hospital ventilation
- Public-transport-interchange ventilation





Contact

Dr. T.T. Chow

Director, BE^ETRU

School of Energy & Environment / Division of
Building Science & Technology

City University of Hong Kong

Tat Chee Avenue, Kowloon

<http://www6.cityu.edu.hk/see/BEET/BEET.htm>

Email: bsttchow@cityu.edu.hk

Phone: 27887622

Thank you!