

Background of the Workshop

The Thai research partner in the project 'Energy and Low-income Tropical housing (ELITH)' has successfully conducted a seminar on 24th March 2016 in Bangkok to disseminate results from the project to personnel from the National Housing Authority (NHA), personnel from the Electricity Generating Authority of Thailand (EGAT), academic faculty members from Architecture and Engineering, and personnel from international organizations and government agencies. Essentially, the Thai researchers informed the audience that the output of the project is scheme for rating energy and carbon performance of residential units (that include detached houses and residential condominium units).

As it turned out, the Demand-side Management Office of EGAT took interest in the scheme and has proposed to NHA to initiate a pilot project to apply the scheme to residential units planned or constructed by NHA. Since EGAT has been carrying out an energy labeling program on electrical appliances, the pilot project is practical extension to its program. If successful, EGAT will extend the program to the general public.

In order to assist EGAT and NHA on this endeavor, and in order to further disseminate results from the project, the Thai research team plan to conduct a workshop on the rating scheme. The workshop includes lectures and computer sessions that participants would have the opportunity to run a computer program developed to assist in the examination and rating a residential unit. The schedule of the workshop appears in the following page.

Participants are expected to bring their own lap top computer and download a trial version of **MATLAB** program.

An Energy and Carbon Rating Scheme for Residential Dwellings

28th July, 2016

King Mongkut's University of Technology
Thonburi, Bangkhuntien Campus

Opening

- 08.30-09.00 Registration
09.00-09.05 Welcome by the Thai Project Principal

Morning Session

- 09.10-09.45 Framework of the Energy and Carbon Rating Scheme for Residential Dwellings (Prof. Dr. Surapong Chirarattananon)
09.45-10.15 Potential reduction in electricity consumption and carbon emission by the residential sector in Thailand (Asst. Prof. Dr. Pattana Rakkwamsuk)
10.15-10.30 Break
10.30-11.00 A description of the requirements on air flow and daylight illuminance, and the energy and carbon performance rating methodology
11.00-11.30 Demonstration on the use of a computer program for design of windows to comply with requirements on air flow and daylight illuminance (Mr. Preecha Tummu and Prof. Dr. Surapong Chirarattananon)

- 11.30-12.00 Demonstration on the use of the computer program for design of walls and roof to improve energy and carbon performance

- 12.00-13.00 Lunch break

Afternoon Session

- 13.00-13:45 Participants are guided to practice using the computer program for design of windows to comply with the requirements on airflow and daylight illuminance (Mr. Preecha Tummu, Ms. Kasawan Ruangtinakorn and Mr. Pichet Lertboonkankit)
13.45-14.30 Participants practice further on the design of walls and roofs (Mr. Preecha Tummu, Ms. Kasawan Ruangtinakorn and Mr. Pichet Lertboonkankit)
14.30-14.45 Break
14.45-15.45 Guided tour of the daylight and solar measurement station, the experimental houses and the campus
15.45 Closing

Past Activities



Organized by:

King Mongkut's University of Technology
Thonburi

126 Prachauthit Rd, Bangmod, Tungkru,
Bangkok, Thailand 10140

Contact E-mail: elith.thailand@gmail.com

Workshop Venue:

Sattabongkot Room 1st Floor
Research Development and Pilot Plant Building
King Mongkut's University of Technology
Thonburi (Bangkhuntien Campus)
83 Moo 8 Tientalay 25, Thakham, Bangkhuntien,
Bangkok 10150, Thailand



Workshop

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