

REAL DATA ELICITED FROM CONSTRUCTIONS PUBLISHED FOR THE FIRST TIME USING E-WIND TOOL IN TAIWAN

TKU' s Wind Engineering Research Center (WERC) held a two day event entitled "International Chinese Wind Engineering Forum" on April 2 and 3. Dr. Cheng Chii-ming, the Director of TKU' s RCWE, presented a paper on some vital measurements elicited from several real constructions using the software, E-WIND, developed by his center. As these measurements were first of their kind in Taiwan, his paper attracted a great deal of interest and attention.

Dr. Wang Jen-mu, who is part of Dr. Cheng' s team on this paper, explains that this is the first time in Taiwan that engineers used real constructions, in their case, Tamsui Central Radio Broadcasting Company and the cable-stayed bridge spanning the Kao-ping River, to measure wind behaviors on buildings through a computerized instrument called E-WIND. In the past, he says, local engineers had to rely on figures elicited by experiments conducted in other countries such as Japan and the US for any comparison. However, this has changed with their project.

E-WIND is basically a huge database collecting several expert systems of wind engineering such as those on building wind code and the wind pressure on high-rise buildings as well as key numbers elicited from wind tunnel experiments. Users can key in their own data, and then the system will search relevant data for comparison or calculation. It can reduce human error in calculation and easy to use for engineers who do not have specific wind engineering background.

Dr. Cheng emphasizes that this system can save time and money for users.

Such a development is a natural consequence of a center which has been dedicated in brilliant academic research and practical engineering tools in the past 20 years. His center owns avant-garde equipment and facilities comparable to those found in national universities and research institutes. And with these, he hopes his center will be an internationally renowned research institute for wind engineering one day. (~Ying-hsueh Hu)

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