SESSION 9 - Modeling, Simulation Softwares and Applications

Main items of the discussion :

1. Comments from the floor

In the 70ies there was a lack of deficit regarding physical aspects in existing models. In the 80ies work begon to resolve the different questions. Also still now there is no consensus regarding for example convection phenomens. An other important problem is time needed to introduce the building's data before to simulate it.

It is difficult to bring simulation to practice.

The new model ENERGY + replaces DOE2 and BLAST : this new one is designed in a more open access.

Guides on validation of models is absolutely necessary when you wish to use them.

For validation of models, some formats exist, also some standardise languages.

Sometimes there is a necessity to create new languages. MODELICA is one of them : it is objects oriented. And there is a call to people to test it.

Most simulation tools are not what designers want.

2. Questions and answers.

There is a use of neutral networks, why not using physical models?
- Mr Kalogiru (Cyprus) : because the only things we need are measured data (input and output) of the system, sure when you have them.
- Mr Kajl (Canada) : to simplified the research of elimination the gap between simplified models and complex models.

Necessity of simplified methods?
- Mr Millet (France) : yes in the begin of the design process, also because limited data : so simplified methods = simplified data. But simplified tools must coming from detailes tools.
And even detailed tools are not applicable in some cases : for example in the case of buildings with movable shadings.

Who certify the models?
- Mr Pelletret (France) : at this time certification of models don't exist : it's only a question of quality and validatin.
- Something happens in CEN's work : there are some groups working on standarts that can be acdcepted by everybody.