

Monday, 29th October, 2007

One of the IEA-related special sessions in IAQVEC 2007(<http://www.iaqvec2007.org/>) to be held in Sendai city, 18:00-20:00, 29th October, 2007

IEA/ECBCS Annex 49: Low-Exergy Systems for High-Performance Buildings and Communities

The present building stock, whose total energy use accounting for more than one third of the present world's primary energy demand, has a substantial saving potential. In order for this to be realized in the coming future, "exergy" approach is promising both for the search of forgotten and new potentials in increasing the overall efficiency of the energy flow from the source to the sink and for the development of new types of active technology, which should well suit to the passive technology. This special session offers those who are concerned about or interested in the issues mentioned above an opportunity to know what the concept of exergy is, how it is applied for the built environment, what kind of low-exergy system components are available for the present and to be pursued, an introduction of an ongoing low-exergy project at a community level, and others. Everyone, either already familiar with or very new to the concept of exergy and also low-exergy approach, are all welcome to join us and to exchange the related information.

Chaired by Masanori Shukuya and Dietrich Schmidt

Masanori Shukuya (Musashi Institute of Technology, Japan)
Exergy concept and its application to the built environment

Dietrich Schmidt (Fraunhofer Institute for Building Physics, Germany)
Low-Exergy systems for high-performance buildings and communities

Bjarne W. Olesen (ICIEE, Technical University of Denmark, Denmark)
Thermal comfort requirement to realize low-ex systems

Gudni Johannesson (KTH-Royal Institute of Technology, Sweden)
Development of various low-ex system components and their integration

Peter Op'tVeld (Cauberg-Huygen R.I.B.V, the Netherlands)
The Mine Water Project Heerlen, the Netherlands – Low Exergy Practice