

Comfort tool

This tool addresses the correlation between building energy consumption and thermal comfort conditions for various user habits. It outlines conditions in which a significant fraction of the occupants will find the environment thermally acceptable.

Short Facts

- Increase efficiency in energy usage for heating and cooling.
- An adjunct tool to the prevention of conditions that may be detrimental to the health of occupants (e.g. thermal stress).
- Thermal comfort is strongly correlated with health, well-being and productivity contributing to the overall human satisfaction in indoor spaces. It prevents people from the sick building syndrome symptoms caused by a thermally discomfort environment, which will probably trigger health issues and decrease productivity.

What do we want to achieve?

The main purpose is to specify the combination of indoor thermal environmental factors (air temperature, thermal radiation, humidity, air speed) and personal factors (activity, clothing insulation) that will produce thermal environmental conditions acceptable to most of the occupants within the space.

Implementation targets

The comfort service can be implemented as an interface/digital platform in specific products such as split Airconditioning units, heat pumps and dehumidifiers.

Users: Consumers, Energy communities, Building facility managers, R&D institutes, and academia.

Greatest Benefit

The tool is useful to evaluate whether or not the comfort level of the user is not compromised during the process of optimisation of the operation of the Heating, Ventilation, or Airconditioning system tailored to the end-users' behaviour. Thermal comfort is a state of mind that expresses the satisfaction with the thermal environment and there are large variations from person to person.

Developer



NATIONAL
TECHNICAL
UNIVERSITY
OF ATHENS

Contact

Andreas Nikoglou
anikog@mail.ntua.gr

Technical Readiness Level



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