WHAT DO BUILDING USERS WANT?

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ABSTRACT
Building designers, engineers, and managers are expected to specify and maintain indoor environmental conditions in buildings that are deemed suitable for human occupancy. Toward this end, designers and engineers typically rely on various codes, standards, and guidelines. Thereby, the tacit assumption appears to be that such resources can be seamlessly traced back to explicitly established and thoroughly validated explanatory theories and models of people's perception and behavior in their surrounding environments. However, a closer examination of this assumption suggests that ultimate instances of such models may not be available. In this context, the present talk briefly revisits a number of high-level descriptions of humans' perception and action models proposed in the course of past century. This brief review suggests that it all but trivial to translate fundamental theoretical insights into practical engineering guidelines. Rather, this translation is hampered by a significant gap in our knowledge. The talk argues that, to address and amend this knowledge gap, a genuinely interdisciplinary approach is needed that involves both engineering and human sciences.

About Prof. Mahdavi

Professor Ardeshir Mahdavi is the Director of the Department of Building Physics and Building Ecology as well as the Head of the Institute of Architectural Sciences at TU Wien, Austria. Professor Mahdavi has conducted internationally acclaimed research in the fields of Building Physics, Building Performance Simulation, Building Controls, Building Ecology, and Human Ecology. Professor Mahdavi has authored over 700 scientific publications and supervised 70 doctoral students. He is a fellow of IBPSA (International Building Performance Simulation Association) and the recipient of the IBPSA Distinguished Achievements Awards.

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