



University of Colorado **Boulder**

Department of Civil, Environmental, and Architectural Engineering
Building Systems Engineering Seminar

Thermal Comfort for All: Setting up a stage

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ABSTRACT

The utility (Utilitas), strength (Firmitas), and aesthetics (Venustas) have remained the primary references for the design of the built form. An ideal unification of these would lead to the production of a well-performing building. Often, depending on the context, designers have often prioritized one of these elements over others. This has led to build forms that have demonstrated regard to few or all three of them with varying degrees of importance. The utility of a building may be understood in two ways, one with reference to providing comfort to occupants and second by assisting them to perform specific functions. To provide comfortable conditions indoors is one of the most basic functions of building and provides a measure of the utility of a building. In the context of global climate variability leading to climate change and inequality in resource allocation leading to social inequality, it is essential to have buildings with improved environmental and energy performance, apart from achieving performance pertaining to utility, strength, and aesthetics. 'Thermal Comfort for All' is an underpinning reference for the presentation titled 'Thermal Comfort for All: Setting up a stage'. In the context of exponentially increasing demand for built spaces, increase in purchasing power and better affordability to gain thermal comfort using unsustainable, mechanical means, and increase frequency of climate-related extreme events, this presentation provides an overview of actions by government, research, academics, and national and international civil society institutions working in India, in order to meet 'Thermal Comfort for All' challenge.

BIOGRAPHY



Rajan Rawal is a faculty member at CEPT University. He teaches energy efficient built habitat, energy modeling, and energy policy at the postgraduate level. His work emphasis is on 'energy performance of human habitat' and 'architectural science education'. Presently, he is Executive Director of "Centre for Advanced Studies in Building Science and Energy" (CARBSE) at CEPT University. Prof Rawal led Indo-US Joint Clean Energy R & D Centre – Building Energy Efficiency Sector, and presently leading one of the projects under Indo-UK project on Energy Demand Reduction and Mission Innovation challenge on heating and cooling in buildings from the India side. He is one of the administrators of the Global Cooling Prize. He is a member of

International Energy Agency task 69 on low energy buildings. He is a senior expert nominated at Global Building Performance Network. He also serves as an executive committee member and board of management at several philanthropic and non-governmental organizations.