Research Topic:
Thermal Comfort and Cooling Load Assessment Associated with Space Conditioning Through Decoupled Cooling

The central thrust of this research is to realize the latent heat removal capacity of an integrated system involving radiant chilled ceiling panels in conjunction with minimum forced ventilation supply. The research study follows a three-phase approach - analysis, simulation and experimentation - to evaluate the effect on latent heat removal keeping the different criteria for achieving performance mandates as controlled variables.

The range of surface temperatures is studied considering its impact on Predicted Percentage of Dissatisfaction (PPD) and Heat Removal Rate (HRR). The aim is to generate a family of graphs describing operational boundaries for radiant cooling for separate building types with different power densities, each building type generating a series in itself considering different levels of relative humidity and flow rate.

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Having completed B.Arch at the Indian Institute of Technology, India in the year 2000, Amit worked in New Delhi for 3 years. Presently, he is working on research projects involving radiant cooling technology and, solar panels, and has future plans to work as Building Scientist.