

ABSTRACT

Energy Conservation in Air-Conditioning using Variable Volume Chilled Water Pumping, Variable Air Volume (VAV) Boxes and Variable Fresh Air Arrangement for Indian Climatic Conditions

This work involves assessment of energy conservation potential using flow variations in chilled water, conditioned air and fresh air in central air – conditioning system for different type of buildings under different and varying Indian Climatic Conditions. The work involves detailed design, hourly simulation and energy modeling of air-conditioning systems for different climatic conditions prevalent in India. The results show that the energy conservation potential of these measures is both application and climatic condition dependent.