

ABSTRACT NO.: 554
TITLE: Energy in Buildings
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Extra heat inside a building is a problem that can be harmful to the building and affect the occupants of the building; this can be a problem in temperate regions. Heat enters the building envelope in many different ways. The purpose of this experiment was to analyse the building envelope with respect to heat flow and give a theoretical model which can help minimize the amount of heat travelling through the envelope. In order to go about this procedure, different ways in which heat transfers through the envelope was investigated. Also factors affecting wind flow and heat flow through the envelope were determined. The effects that different materials have on the heat flow were examined. The heat equations were analysed and used to compare the effects of different materials on heat flow in each assembly. The envelope was modeled using the assembly that allowed the least heat flow in the building.