

ABSTRACT NO.: 552**TITLE: Energy & Buildings****AUTHOR: Akeem Richards (807004458)****SUPERVISORS: Dr. R. Andrews
Dr. K. De Souza**

A building envelope can be defined as a building component that encloses conditioned spaces and through which thermal energy is transferred to or from the outdoor environment. (Keith E. Elder 1993) The major factor of energy balance of a building involves the transfer of thermal energy through the building envelope through which insulation is a major factor in reducing heat loss or heat gain of a building. This was proven in our investigation where it was found that a house containing insulation reduced the rate of heat transfer from the inside through the envelope to the environment. In doing so specific characteristics of the building envelope was investigated. These are heat flow (q) to and from a building, thermal resistance (R), thermal conductivity (K), thermal transmittance (U -value). From this investigation it was shown that by the addition of insulation to building it will make the building a more energy efficient.