Electrical/Computer Engineering Design Project Proposal

Title: *Design a passive house for Newfoundland*
Client: *M. T. Iqbal (tariq@mun.ca, Room En3062)*

Supervisor: *M. T. Iqbal*

Description

The term passive house refers to the rigorous, voluntary, standard for energy efficiency in houses. It results in ultra-low energy house that require little energy for space heating or cooling. Some details of passive house may be found at http://www.passiv.de/07_eng/index_e.html. A passive house needs space heating of a maximum of 15kWhr/m2/year, minimum possible air leak and a total energy demand of a maximum of 120kWhr/m2/year. There is no such house in Newfoundland. Some details of a Canadian passive house built by an Austrian team this years may be found at http://austria-passive-house-whistler-2010.blogspot.com Design of a passive house depends upon geography and weather. In this project we would design a passive house for Newfoundland.

Roles

1. *Student 1: Design a 2000sf house (insulation+orientation+heat loss) to meet passive house standard (this will be done using a software)*
2. *Student 2: Design a renewable energy system for the Newfoundland passive house*
3. *Student 3: Design an energy storage and management system for the passive house*