Toward Energy Zero Building: A COMSOL Multiphysics® Model of Building and Its HVAC System

F. Bruno[1]

[1]ENERSPACE Srl, Genua, Italy

Abstract

A model built with COMSOL Multiphysics® to exploit meteorological forecasts and instant outdoor meteorological data (temperature, solar radiation, moisture, wind speed and direcition, etc.) together with indoor ambient data (air temperature, radiant temperature of enclosures, etc), building parameters (mass, orientation, surface, structural composition, etc.) and historical consumption of fuels finalized to save energy through specific thermo-regulations of HVAC plants and systems.

Reference

Franco Bruno - matricola 656066 Tesi di Laurea in Ingegneria Aerospaziale Politecnico di Milano anno 2004-2005 (Relatore Prof. Giulio Solero)

Franco Bruno - # 656066 Final thesis in Aerospace Engineering - Master Degree academical year 2004-2005 Politecnico di Milano (prof. Giulio Solero)