

Thesis Title	Indoor thermal conditions in dwellings in Cyprus
Programme of Studies	MSc in Sustainable Energy Systems
Course	SES 525 Capstone Project II
Area of Study	Computational Building Physics – Whole Building Energy Analysis Experimental Building Physics – In-situ Measurements
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Semester	Spring Semester 2016
Short Description	<p>The aim of this project was to study indoor conditions in dwellings in Cyprus for the provision of the feeling of thermal comfort. The study sample included ten buildings and their residents in various locations around Cyprus. The residents filled in a questionnaire where they provided some personal information about themselves which is necessary for the study, including their level of activity and their clothing. Their metabolic rate and clothing thermal insulation was calculated based on the given data. For simplicity, the study was localized in one room in every house where the residents spend most of the time to relax and perform regular everyday activities.</p> <p>At every one of the examined rooms measurements of air temperature, mean radiant temperature, air speed and relative humidity were done. The predicted mean vote and the predicted percentage dissatisfied were calculated for each case using an online thermal comfort tool for the evaluation of thermal comfort according to standard EN-15251 requirements. Predicted mean vote showed arithmetically the thermal sensation feeling of a large group of people and predicted percentage dissatisfied the percentage of them that would feel thermally dissatisfied with the existing indoors conditions. Both parameters were in specific ranges in order to show thermal comfort inside a space. In addition, the indoors CO₂ levels were measured as well as they provided a good indication of an adequate ventilation and the quality of indoor air.</p>