

## Simulation of Natural Ventilation Strategies as a Comparison Method for Two Different Climates

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**Abstract :** Health and living in a healthy environment are important for all the living creatures. Healthy buildings are the part of the healthy environment and the ones that people and sometimes the animals spend most of their times in it. Therefore, healthy buildings are important subject for everybody. There are many elements of the healthy buildings from material choice to the thermal comfort including indoor air quality. The aim of this study is, to simulate two natural ventilation strategies which are used as a cooling method in Mediterranean climate, by applying to a residential building and compare the results for Asian climate. Fulltime natural and night-time ventilation strategies are simulated for three days during the summertime in Mediterranean climate. The results show that one of the chosen passive cooling strategies worked on both climates good enough without using additional shading element and cooling device, however, the other ventilation strategy did not provide comfortable indoor temperature enough. Finally, both of the ventilation strategies worked better on the Asian climate than the Mediterranean in terms of the total overheating hours during the chosen period of year.

**Keywords :** Asian climate, indoor air quality, Mediterranean climate, natural ventilation simulation, thermal comfort

**Conference Title :** ICHB 2018 : International Conference on Healthy Buildings

**Conference Location :** London, United Kingdom

**Conference Dates :** November 19-20, 2018