The influence of various urban typologies on wind conditions in open urban spaces
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Abstract

Open public spaces are a vital component in a built urban environment that encourage public life in the city. Achieving comfortable conditions will strengthen their use fitting them to different outdoor activities. Wind affects the comfort conditions and determines the ability to use open spaces. Different urban typologies influence the local wind regime and create pleasant/unpleasant wind conditions in the pedestrian level around the buildings.

A system developed for systematic analysis of the effects of geometrical parameters of different typologies on the wind climate in open spaces between buildings will be presented. This system enables, on the basis of qualitative-quantitative analysis, to develop recommendations and determine the recommended outdoor activities for people; activities that can take place in open areas of the examined urban typologies in respect to human thermal comfort. The results of the study can function as a tool that enables designers to estimate the suggested plans already in its early design stages.

The advantages of the suggested system are the graphical, easy to use, recommendations and guidelines. They enable the planner with general knowledge to make quick decisions and apply the correct principles for open public spaces in respect to opening or closing them to the wind