

## عنوان مقاله:

The Form of Residential Buildings on Local Winds: Air Pollution Reduction

## محل انتشار:

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## خلاصه مقاله:

This article addresses the analysis of the mechanism of natural air flow around the residential buildings and the effect of the form of residential buildings on air flow among four building forms in Tehran. The aim of this research is to study the effect of the form of residential buildings on the mechanism of natural air flow with the purpose of optimally utilizing clean air. The research method is to use computer modeling and model analysis in the related software and conclusions have been achieved using comparison of outputs of the models produced. Accordingly, four samples were first selected from software forms and modeled in one commercial micro-climate simulator software. They were tested by entering Tehran climatic data and results were extracted as simulation images. Since the analysis was conducted in one hour interval in the morning of the 23rd of December 2013 among four selected forms. The results helped us to choose the optimal form among these cases. Thus, a general rule was not given regarding the case that the selected form is the best in all aspects. Research achievements indicate that building forms have a significant effect on local winds and air pollution reduction. Therefore, the general form of buildings affects the degree and type of pollution dispersion due to carbon dioxide and the retention effect of suspended particles.

## کلمات کلیدی:

Air flow, Local winds, Residential Building Form, Pollution Dispersion, Retention of Suspended Particles

## لینک ثابت مقاله در پایگاه سیویلیکا:

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