

## Determination of Opening Area in Administrative Buildings For Natural Ventilation, Lighting, and Solar Sterilization

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### Abstract

The current paper investigates one of the important topics that emerged in the trends of the modern design of administrative buildings, namely the healthy design, which aims to provide indoor environment suited to the human (physiological) requirements to provide a healthy workable environment on one side and work to resolve energy problems on the other side. The research aims at contributing in the provision of this environment through designing a computer program. This program is supposed to determine the external openings area for administrative buildings, by studying solar radiation element and its effect on indoor air quality, natural ventilation for health purposes and sufficient day lighting to achieve visual comfort for the users of the building.