An Evaluation Approach for Circulation in Buildings

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Abstract

Forming of circulation in buildings, as an aspect of design, can be achieved by satisfying a design level of performance as an objective. Evaluation may be attained at an aggregation of various values for different performance criteria, as one approach. Previously, many researches have used cost minimization as an evaluation criterion. However, occupants' circulation in buildings, possesses various attributes, which can be defined explicitly or implicitly in a computer system, possibly via artificial intelligence techniques. This paper can propose two main sets of attributes to be used in performance evaluation criteria, in addition to some units and indices as metrics resulting from the combination and interaction of the two sets of attributes, in an attempt to develop a computerized evaluation of circulation in buildings. Evaluation may result from accumulation of the different values of the criteria involved taking into consideration the tradeoffs, including costs considerations, to reach the required objective.