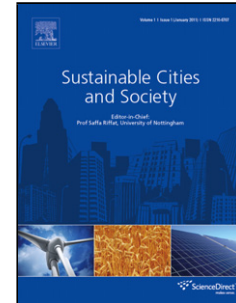


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# Exploring the potential use of building facade information to estimate energy performance

Andrea Martinez <sup>a</sup>, Joon-Ho Choi <sup>a\*</sup>

<sup>a</sup> Building Science, School of Architecture, University of Southern California, Los Angeles, CA 90089, United States

\* Corresponding Author: 850 West 37<sup>th</sup> St. Watt Hall #318, Los Angeles, California, 90089, United States

## Highlights

1. This research investigated the potential use of building facade information to estimate buildings' energy efficiency.
2. This study was conducted based on the data obtained from 92 existing non-residential buildings in the U.S.
3. Multiple data mining techniques were adopted to investigate significant building and facade features.
4. Facade symmetry, facade area to South (all climates), facade-to-roof ratio (hot climate), window-to-wall ratio (cold) were found as significant building parameters.
5. This study revealed the potential use of facade features to estimate building energy performance.

## Abstract

In spite of prolific research on the energy performance of buildings in the last decades, and the growing focus on reducing their operational energy, buildings still prevail as the main end users of energy in the U.S. The goal of this research is to investigate the potential use of building

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