



Experimental and Analytical Study of the Energy Performance of Building Envelope

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Message from the Guest Editor

Heat transfer and air leakage through the building envelope are responsible for approximately 38% of the energy used in residential and commercial buildings in the USA. The impact can be even more significant in countries where energy efficiency is not prescribed in building codes or has severe weather conditions. Therefore, there is a tremendous opportunity to save energy by improving the energy performance of building envelopes. We aim to publish credible studies from across the globe that demonstrate an increase in energy efficiency through improving the energy performance of the building envelope. Manuscript topics may include but not be limited to:

- Development and deployment of innovative materials and technologies for building applications that can reduce unwanted heat transfer through the opaque envelope, fenestration system, and air leakage;
- Thermal storage integrated with the building envelope;
- Diverting heat from building envelope to reduce energy use and peak demand; and
- Dynamic control and thermal management systems integrated with the building envelope.





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Message from the Editor-in-Chief

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