

عنوان مقاله:

Effects of supportive spaces and people on heating energy demand in cold climate in Iran

محل انتشار:

دو فصلنامه تجهیزات و سیستم های انرژی، دوره 5، شماره 4 (سال: 1396)

تعداد صفحات اصل مقاله: 18

نویسندگان:

Azin Keshtkarbanaeemoghadam - *Department of Architecture, Damavand Branch, Islamic Azad University Damavand, Iran*

Mohammad Hadi Kaboli - *Department of Architecture, Damavand Branch, Islamic Azad University Damavand, Iran*

Ali Dehghanbanadaki - *Department of Civil Engineering, Damavand Branch, Islamic Azad University, Damavand, Iran*

خلاصه مقاله:

Decreasing heating needed energy of building located in mountainous areas without any urban infrastructure of energy supply and services is one of the most important things to get thermal comfort. Accordingly, using building conditions based on different types of applicability and passive design strategies should be considered. Therefore, the objective of this study was to achieve the proper heating needed energy for proposing functional model as a mountainous shelter located in Iran. Two influence factors namely, number of people per area and different supportive space were considered. The analysis has been performed by Honeybee and Ladybug add-ons in Rhino/Grasshopper software. Material characteristic, zone load, location and climate data as sub-parameter were calculated using ASHRAE Standard 90.1-2010. The results indicated that regarding to time-use period of the shelter that is mostly in warm months, the highest performance of the space, based on minimum heating needed energy was attributed to the maximum size of supportive space by 608 m² when the number of people was 0.26 per area. The reduction of heating needed energy was 17% in cold month and 23% in warm month.

کلمات کلیدی:

Heating Needed Energy, Number of People Per Area, Supportive Space

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/862079>

