

Studying the relationship between climate, outdoor and indoor comfort for houses and apartment buildings (Case study: Bandar-e Anzali)

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ABSTRACT:

In building construction, in particular pertaining to structures, it is critical not only to provide the security, but also to consider interior and exterior facility and convenience. In residential contexts, in past, more environmentally, climate compatible materials were often used; whereas, nowadays, growing population, increased land price, new materials as well as incompatible climate modeling led contexts congruence and climate conditions to be less interested. This research studied thermal comfort inside and outside of houses and apartment buildings in Bandar-e Anzali, Gilan through using a descriptive analytical, field study method. Eight sample stations were selected regarding Anzali land use and 60 days of wet and dry weather were screened in these stations. According to this capture and using Mahoney, bioclimatic constructional method and effective temperature, interior and exterior thermal comfort in houses and apartment buildings were determined in April, May, June, and July. Considering bioclimatic constructional method, maximum comfort condition is related to April and May inside and outside of houses in term of space. In some cases, inside of houses shares equal conditions with outside of apartment buildings. In operative temperature method, April and May are located in comfort condition (thermal comfort); and various positions in understudied stations showed thermal comfort in June and July at wind speed 0.5 to 1.5 ms^{-1} .

Keywords:

Constructional bioclimatic, Comfort, Operative temperature, Dry and wet temperature, Bandar-e Anzali.