

Insight on Passive Design for Energy Efficiency in Commercial Building for Hot and Humid Climate

Authors : Aravind J.

Abstract : Passive design can be referred to a way of designing buildings that takes advantage of the prevailing climate and natural energy resources. Which will be a key to reduce the increasing energy usage in commercial buildings. Most of the small scale commercial buildings made are merely a thermal mass inbuilt with active systems to bring lively conditions. By bringing the passive design strategies for energy efficiency in commercial buildings will reduce the usage of active systems. Thus the energy usage can be controlled through analysis of daylighting and improved living conditions in the indoor spaces by using passive techniques. And comparative study on different passive design systems and conventional methods will be approached for commercial buildings in hot and humid region. Possible effects of existing risks implied with solution for those problems is also a part of the paper. The result will be carried on with the design programme to prove the workability of the strategies.

Keywords : passive design, energy efficiency, commercial buildings, hot and humid climate

Conference Title : ICEEBDRA 2018 : International Conference on Energy-Efficient Building Design and Responsible Architecture

Conference Location : Tokyo, Japan

Conference Dates : April 05-06, 2018