

Enhance Indoor Environment in Buildings and Its Effect on Improving Occupant's Health

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Abstract : Recently, the world main problem is a global warming and climate change affecting both outdoor and indoor environments, especially the air quality (AQ) as a result of vast migration of people from rural areas to urban areas. Therefore, cities became more crowded and denser from an irregular population increase, along with increasing urbanization caused many problems for the environment such as increasing the land prices, changes in life style, and the new buildings are not adapted to the climate producing uncomfortable and unhealthy indoor building conditions. As interior environments are the places that create the most intimate relationship with the user. Consequently, the indoor environment quality (IEQ) for buildings became uncomfortable and unhealthy for its occupants. The symptoms commonly associated with poor indoor environment such as itchy, headache, fatigue, and respiratory complaints such as cough and congestion, etc. The symptoms tend to improve over time or even disappear when people are away from the building. Therefore, designing a healthy indoor environment to fulfill human needs is the main concern for architects and interior designer. However, this research explores how occupant expectations and environmental attitudes may influence occupant health and satisfaction within the context of the indoor environment. In doing so, it reviews and contributes to the methods and tools used to evaluate only the indoor environment quality (IEQ) components of building performance. Its main aim is to review the literature on indoor human comfort. This is followed by a review of previous papers published related to human comfort. Finally, this paper will provide possible approaches in design level of healthy buildings.

Keywords : sustainable building, indoor environment quality (IEQ), occupant's health, active system, sick building syndrome (SBS)

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