Smart Buildings Architecture from a User-Comfort Perspective

Recent years have witnessed rapid technological changes and developments leading to significant improvements in building construction techniques, thus, it was necessary for architecture to interact and cope with these variables and influences... As a result, the term "Smart Buildings" appeared as one of the highlights of the new millennium, which depends on the use of modern technological methods and techniques integrating together to achieve high levels of building functionalities and users' comfort.

The research problem arises from the recognized absence of integrated smart concepts and applications targeting users' comfort in building construction in Egypt. They are considered, in Egypt, as an additional luxurious aspect or outside the realm of reality despite the continuous desire to pursuit technological developments… However, Smart Building Construction is globally wide spreading and achieving major benefits in facilitating user's life, saving operation and maintenance costs, besides other functional benefits, thus providing high levels of comfort for users… Therefore, it is necessary to orient architects in Egypt towards using modern applications for smart building construction to achieve highest level of users' comfort.

Thus, the research aims to shed light on the role of smart buildings in providing comfort to users, through introducing smart architecture and presenting concepts and definitions for smart buildings, in addition to reviewing different methods for achieving users' comfort in buildings, and analyzing various types of comfort achieved in smart buildings that does not exist in normal buildings... The research then presents an analytical applied study on several cases or examples of smart buildings that have

achieved users' comfort. Finally, it concludes a set of elements and recommendations to consider users' comfort in smart buildings.

Keywords: Smart buildings, modern techniques, types of comfort, users, Analytical examples