

Achieving sustainable interior design by employing architectural digital technology and parametric design

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Abstract:

Architectural digital technology in architecture and interior design, as a design function, is related to the analysis of building functions, performance and operations based on the knowledge and application of science, engineering and digital technology, which works to effectively and efficiently achieve interior design functions and life characteristics of building systems, materials and components for long-term efficiency. Digital technology is the main influence of modern interior design; with what it can provide through parametric systems that achieve sustainable dimensions of interior design. Architectural digital technology can decisively influence the interior design in relation to the parametric construction processes of interior spaces throughout the life cycle of the building. This ensures that these spaces remain economical, efficient and sustainable. Therefore, the trend towards employing the characteristics of architectural digital technology through parametric design in creating sustainable interior spaces, which tends to increase the ability of interior design elements to achieve sustainability, by adapting architectural digital technology and parametric design in creating internal spaces that have the ability to sustainable coexistence in order to provide comfort to users. and energy savings. Accordingly, the research problem stems from the need to achieve a sustainable interior design through the application of architectural digital technology and parametric design in the design treatments of interior spaces, and then this research aims to move towards studying the employment of the characteristics of architectural digital technology through parametric design in creating sustainable interior spaces. The research found that parametric design contributes greatly to achieving sustainable interior spaces, as it is a design that relies on the use of reproductive systems that have the ability to add improvements to the creative interior design process, and include the use of algorithms and scripts in the process of making ideas, and is an effective tool for its radical impact. On the thinking steps used to reach the design of the final spaces, in which digital technology plays the largest role.

Keywords:

Parametric design - Sustainable interior design - Architectural digital technology.