

Applications of artificial intelligence as an innovative approach for designing printed wall hangings for the Haramain Al-Sharafi train stations in the Kingdom of Saudi Arabia

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Abstract:

With the rapid advancement of digital solutions, especially the rise of artificial intelligence (AI) technology, their applications have expanded to encompass different areas, including health, education, design, etc. By reinforcing and augmenting the efforts of the Kingdom of Saudi Arabia in attaining its national vision and plan pertaining to the adoption of artificial intelligence applications and promoting research in this domain to amplify economic growth in the Kingdom, In addition, the use of AI applications to generate, process, and enhance designs has become more popular due to the growing interest in their accelerated applications, particularly those that improve design competitiveness. Although AI applications have been helpful in supporting the creation and development of various design patterns, a significant issue has arisen regarding the lack of control that designers have over the outcome of the design process. This has prompted the need to find ways to utilize these applications while keeping control over the results of the design process by providing these applications with design elements and configurations that embody the designer's ideas and creativity. Hence, the research problem focuses on using the potential of AI applications, controlling the inputs and outputs of these applications, and leveraging them to generate designs for printed wall hangings at Haramain Al-Sharafi train stations. This is through the descriptive approach to AI applications in the field of design, specifically focusing on how to control their inputs and outputs and their impact on the design process, and the applied design approach by creating innovative printed wall designs using AI applications inspired by Islamic art, which represents the architectural style of the stations and employs them within their internal spaces. The research aimed to utilize AI applications as an innovative approach to designing printed wall hangings while providing various design solutions with aesthetic and artistic values while also preserving the originality and creativity of the designer and then employing them in Haramain Al-Sharafi train stations. The researchers have proven the possibility of exerting control over the design process of AI applications by regulating the process by which these applications are fed, thereby incorporating the designer's essence, cognitive abilities, and creativity into the apps.

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