

## Vernacular Façade for Energy Conservation: Mashrabiya, A Reminiscent of Arab-Islamic Architecture

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**Abstract :** The Middle Eastern countries have preserved their heritage, tradition, and culture in their buildings by incorporating vernacular features of Arab-Islamic Architecture. The harsh sun and arid climate in the Gulf region make their buildings and infrastructure extremely hot and challenging to live in. One such iconic feature of Arab architecture is the Mashrabiya, which has been refined and updated for both functional and aesthetic purposes. This feature helps reduce the impact of solar radiation in buildings and lowers the energy requirements for creating livable conditions. The incorporation of Mashrabiya in modern buildings in the region symbolizes the amalgamation of tradition with innovation and modern technology. These buildings depict Mashrabiya with refinements for its better functional performance and aesthetic appeal to make superior built forms. This paper emphasizes the study of Mashrabiya as a vernacular feature with its adaptability for Energy Conservation and Sustainability, as seen in some of the recent iconic buildings of the Middle East, through a literature review and case studies of renowned buildings.

**Keywords :** energy efficiency, climate responsive, sustainability, innovation, heritage, vernacular

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