

Elseragy [24] was the first to establish a sound theoretical basis for the validity of the above various claims of the climatic advantages of different curved roof forms in hot-arid regions, where ...

The imperative of energy-efficient and green building practices has become more urgent as climate change and environmental degradation impact regions across the globe. This paper explores the optimization of passive solar design in Texas green

In sustainable architecture, external solar shading is more than an aesthetic choice; it's a critical solution that enables buildings to perform optimally under the increasing demands of energy efficiency and occupant comfort. By selectively blocking or filtering sunlight, solar shading systems can help architects achieve significant reductions in heat gain and ...

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The percentage perceptions of the respondents on the influence of architects' awareness of sustainable design concepts, principles, and Sustainable Development Goals (SDGs) on their architectural design practices in the Enugu region are in Table 3. The findings showed variation in the respondent's perception, which may be linked to personal observation, ...

Providing indoor thermal comfort is one of the most significant factors in architecture that it is observed in traditional buildings all around the world, which shows climate-responsive design methods. Bioclimatic architecture design strategies as a sustainable approach, provide indoor comfort for occupants, use renewable energy resources.

China's high solar exposure area refers to an area with first-class solar energy resources, where the annual sunshine exceeds 2800 h, and the annual total radiation is above 6700 MJ/(m<sup>2</sup>·a) [1]. Noticeably, the area in question here belongs to the severe cold and cold regions of China in the architectural climate zone, where there is much heating demand and ...

SUSTAINABLE ARCHITECTURAL BUILT ENVIRONMENT . CA(NDR),CPWD Architectural Design

Strategies Conservation of natural soil and trees. Orientation of building has been planned reduce ingress of solar radiation. Large openings North ...

The principles of passive solar design can be applied to both residential and commercial buildings, and can be used in a variety of climates and geographic regions. Passive solar ...

Influence of Orientation in Complex Building Architecture in Various Climatic Regions in Winter. ... J., Moore, T., Horne, R., 2011. "Affordable passive solar design in a temperate climate: An experiment in residential building orientation". ... of electrochromic windows impact in the energy performance of buildings in Mediterranean ...

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