Review of: "Thermal Comfort Temperature Evaluation in Hospital Wards for Patient Safety and Climate Change Sustainability"

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Potential competing interests: No potential competing interests to declare.

The abstract provides a clear overview of the paper, highlighting the impact of Iraq's construction design on the quality of its direct heat recovery system, especially in light of the warming climate. Here are some comments and suggestions for improvement:

- Provide more specific details about the methodology used for generating precise temperature forecasts using minimal variables. What are these variables, and how do they contribute to accurate predictions?
- Discuss practical implications or recommendations arising from the study. For instance, how might the findings be applied to improve thermal comfort in hospital wards and other buildings in Iraq?

To improve the introduction part take the following comments:

- clearly state the main objective or thesis of the paper early in the introduction. Readers should have a clear understanding of what the research aims to achieve.
- While there is mention of a literature review, consider incorporating key findings from existing literature on passively ventilated closets and hospital design in hot climates. This will provide context for the research gap you aim to address.
- Clarify the methodology used for the simulation mentioned in the latter part of the introduction. What parameters are considered in the simulation, and how do it contribute to the evaluation of potential renovation outcomes?

In the methodology elaborate on the temperature control devices installed in the hospital. What specific technologies or systems are in place, and how do they contribute to maintaining thermal comfort within the wards?

- Also specify the parameters measured during field measurements, such as average, minimum, and maximum air temperatures, total solar irradiation, reference point incidence, and reflected hemisphere sun radiation. Provide details on the instrumentation used, including shielded copper-constant thermocouples and the Eppley 4-48 pyrometer.
- Conclude the methodology section by summarizing the key methods employed and their significance in evaluating the thermal conditions of Al-Kadhimiya Teaching Hospital.

For result and discussion, highlight the importance of the sensitivity analysis conducted on June 10, 2022, and explain how the results contribute to the overall understanding of air temperatures around the hospital.

In conclusion part, emphasize the complementary relationship between the building layout and the surrounding vegetation. Discuss how this interplay contributes to mitigating the negative impacts of heat in Baghdad and its suburbs.

- Encourage technicians in the building sector to optimize the predictive models by adjusting settings to align with project-specific needs and budget constraints. Provide practical recommendations for model optimization.
- Clearly articulate the role of building height in moderating ambient air temperature, connecting it to the comfort of occupants. Discuss how expansive views of the sky and higher LAI contribute to this moderation.
- Provide more context on the engineers' work in the 1980s and the importance of simulating actual overheating, especially in autonomously operated passively heated and cooled structures.
- Provide recommendations for addressing overheating issues, considering factors such as insulation, windows, and energy-efficient measures.The abstract provides a clear overview of the paper, highlighting the impact of Iraq's construction design on the quality of its direct heat recovery system, especially in light of the warming climate. Here are some comments and suggestions for improvement:
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