



**Charting a Resilient Future: Climate Change as a Catalyst for Sustainable National Development**  
Proceedings of the 5th International Conference (FESCON 2025) at Chukwuemeka Odumegwu Ojukwu University,  
Uli Campus, Uli, Nigeria  
18 - 20 June 2025

**POST-OCCUPANCY EVALUATION OF THERMAL COMFORT CONDITIONS IN FACULTY BUILDINGS IN ALEX-EKWUEME FEDERAL UNIVERSITY**

**Obi Cynthia, C.<sup>1</sup>, Munonye, Charles. C.<sup>2</sup> and Udomiaye, E<sup>3</sup>**

<sup>1,3</sup> Department of Architecture, Alex Ekwueme Federal University Ndufu-Alike, Ebonyi State

<sup>2</sup>Department of Architecture, Chukwuemeka Odumegwu Ojukwu University, Uli, Anambra State

E-mail: <sup>1</sup>Ocynthia643@gmail.com, <sup>2</sup>cc.munonye@coou.edu.ng, <sup>3</sup>udomiaye.emmanuel@funai.edu.ng

**Abstract**

*Achieving thermal comfort in office blocks is a big challenge facing the building industry. High indoor temperatures can negatively impact the health and productivity of office workers. This study investigates the thermal comfort levels of faculty of humanities buildings containing four (4) different departments, with fifty-three (53) offices in Alex Ekwueme Federal University, Ndufu-Alike Ebonyi State. A post-occupancy evaluation approach was adopted during the survey, using a mixed research method. The participants answered comfort questions at the same time the indoor and outdoor thermal variables were being measured with data loggers. Results showed that 65% of the occupants were uncomfortable with the indoor thermal environment, with 60 % of the respondents reporting low air inflow as their reason for thermal discomfort. Results further revealed that thermal comfort levels varied significantly across different buildings and spaces. Occupants' perceptions of thermal comfort were observed to be influenced by factors such as personal demographics, clothing, and activity levels. This paper recommends the adoption of climate-responsive designs to reduce heat gain and improve ventilation in office blocks in tropical climates.*

**Keywords.** Buildings, Occupants, Post-occupancy evaluation, Productivity