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PERCEPTION ON THERMAL COMFORT IN
BUILDING AMONG BUILDING SURVEYOR
STUDENTS AT ANNEX 3 IN UITM SERI
ISKANDAR

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ABSTRACT

The internal to external transition, and subsequent occupant adaptation, influences occupants' thermal perceptions and their evaluation of the building. The mixed method assessed whether the critical factors mentioned in the previous study affected the thermal comfort of students in Annex 3 of UiTM Seri Iskandar. The objective of this research are to study thermal comfort for Institutional building in UiTM Perak Branch, to identify critical factors that are caused by thermal comfort and to identify the comfort level study of annex 3. Sixty one respondents answered the data collection representing the perception of students about thermal comfort in Annex 3 of UiTM Seri Iskandar. The parameter readings were taken in terms of Relative Humidity (RH), Temperature and Lux of the building in the morning, afternoon and evening to know the thermal comfort of the building. This study found several critical factors affecting thermal comfort students, including lighting, sound, metabolism rate, etc. Structured questionnaire for this case study using Google form.

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CHAPTER ONE: INTRODUCTION

1.1 Study Background

Global warming is a climate change phenomena marked by a substantial rise in Earth's average temperatures, which for a long period changes atmosphere and habitat balances. That would be specifically related to the rise in greenhouse gas emissions in our environment which makes the earth's climate stronger. The surface temperature of the earth has actually risen by 0.8°C Celsius relative to the end of the 19th century. Since the beginning of statistical studies in 1850, over these last 30 years has been significantly warmer than either of the preceding decades. At the rate of existing CO₂ pollution, scientists predict an annual temperature rise of between 1.5°C and 5.3°C by 2100. (Houghton, J. 2005)

The phenomenon of climate change now poses a threat to the human world. Individuals' behaviour and actions contribute relatively to the impacts of climate change as a consequence of industrial use construction and carbon emissions. (Jamaludin, N. et al., 2015) Malaysia is situated along the equator, where the weather is mild and humid. Strong sun intensity and high daily atmospheric temperature are the most significant climatic impacts in Malaysian buildings. (YOLA, L. 2018) Nowadays, most of the building planners prefer to implement mechanical systems for building construction, such as air conditioning, in order to attain the necessary indoor thermal comfort resulting in increased energy usage in buildings due to extreme heat and high temperature of the air (Lam, K. P. et al., 1999)

Thermal comfort is an important aspect of the design process, as modern man spends most of the day indoors. Thermal comfort is defined as 'the state of mind that expresses satisfaction with the thermal environment'. (ASHRAE, 2014) The concept of thermal focuses on the psychological state of consciousness, frequently reflecting a sensation of moderate heat or cold. In terms of body sensations, thermal comfort is the feeling of being cold, cool, slightly colder, neutral, slightly warmer, warm and dry. From a physiological perspective, thermal comfort usually happens when there is a healthy exchange of heat between the body and the environment, characterized by a lack of regulatory sweating. (Senin & Mydin, 2013)