

FUNDAMENTAL STUDY ON THERMAL SURFACE ANALYSIS OF LATE MODERN STYLES' APARTMENTS WITH CASE STUDIES IN MALAYSIA

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This study discusses a comparative analysis of the thermal surface temperature on high-rise apartments designed with late modern styles in Malaysia. In Malaysia, apartments are divided to two categories namely midrise and highrise apartments. Highrise apartments are the residential buildings higher than five stories equipped with elevator whereas midrise apartments have no elevators with 3 to 5 stories' height. The results of this study will provide a thermal surface data of the apartment facades. The data analyse the level of sustainability awareness of the architectural styles on facade design to the tropical context. This thermal surface analysis will figure the design awareness of the architects who design the buildings in complying with their understanding to the climatic factors. Late modern design styles have a complex geometric design with ranging from simple to complex roof structures which have an emphasis on abstract geometric form in building design. In this study, two late modern design apartments are selected as the case studies. The location of these apartments is in Putrajaya, the latest new town built as an administrative city of Malaysia. The thermal surface data will be detected by a thermal device named Fluke Ti20 Infrared Camera. This camera will capture thermal images of the apartment facades. The analysis indicates that both apartments have relatively good performance of the facade design with thermal surface data. In conclusion, by designing apartment with shading design, it guides with passive design elements which must be integrated in building design in tropical climate.

Key Words: *apartment; thermal surface analysis, late modern style*