

NUR ATIKAH BINTI SHAARI



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Information about the graduate study programme

Area: Thermal Comfort
 ☒ iKohza: Wind Engineering for {Urban,Artificiaand Man Made} Environment
 ☒ Date of first registration: 4/9/2013
 ☒ Field of Study: Mechanical Engineering
 ☒ Name of Main Supervisor: Dr. Sheikh Ahmad Zaki bin Shaikh Salim
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Educational Background

Bachelor of Science (Physics) Universiti Teknologi Malaysia,Skudai

Award

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Working Experience

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Publications

Journals

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Publications

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A CASE STUDY OF RELATIONSHIP BETWEEN THERMAL COMFORT AND OCCUPANT BEHAVIOR FOR EDUCATIONAL INSTITUTION IN MALAYSIA

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Air conditioning system had been accepted as one of the mechanisms to achieve thermal comfort especially in tropical countries. However, over usage of air conditioner will result in wastage of energy. These could be happen due to the varieties behavior of occupants such as controlling air conditioner temperature, left the room without switching off electrical energy, opening the window and so on. In order to quantify the energy consumption based on air conditioning ventilation system, variation set up point of temperature by the occupants inside the room in a building is important. Hence, a study of occupants' behavior towards energy consumption based on variation set up point of temperature as well as thermal comfort will be conducted in an air conditioning government's building, Malaysia-Japan International Institute of Technology (MJIT) which is located in Universiti Teknologi Malaysia Kuala Lumpur (UTMKL). Methods of assessments are divided into two; subjective and objective assessment. Questionnaire will be distributed as a subjective assessment with the target of obtaining 100 participants to be involved. Indoor field measurement will become the objective assessment. Both of the assessment will be conducted during two periods which is south west monsoon and north east monsoon for two weeks each. This case study will focus on the classroom in MJIT's building. The measured thermal comfort parameters are air temperature, relative humidity, mean radiant temperature and air velocity. Predicted Mean Vote (PMV) and Predicted Percentage of Dissatisfied (PPD) will be presented together with the range of comfort zone and then compared with ASHRAE psychometric charts. From questionnaires, instead of Thermal Sensation Vote, thermal acceptability and thermal preference will also be analyzed. Based on the results, a relationship between occupants' behavior, energy consumption and also thermal comfort will be presented