

**BUILDING SURVEYING DEPARTMENT
FACULTY OF ARCHITECTURE, PLANNING AND SURVEYING
UNIVERSITI TEKNOLOGI MARA
SHAH ALAM, SELANGOR**

**SICK BUILDING SYNDROME:
LIGHTING ASSESSMENT FOR COMPUTER LAB
IN UITM SHAH ALAM**

**This dissertation submitted in partial fulfillment of the requirement
for honouring of Bachelor in Building Surveying (Honours)**

**PREPARED BY : HAWA BINTI ABDUL MAJID
SESSION : FINAL YEAR 2003/ 2005**

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OCTOBER 2005

ABSTRACT

This research attempts to expose not only to the reader but also to the author herself, the enigma of "sick building syndrome" (SBS). The reader is introduced to many facets of the syndrome from potential causes, through the consequences and to possible remedies. Past research on SBS had focused on major factor that caused the phenomena but this dissertation will take the reader on the understanding of lighting assessment, which is also, contribute to SBS.

It has been said that first we shape our buildings, and then our buildings shape us (Ashton, 1992). Concern for the health of the university's indoor environment is supported by studies which show that we spend up to 90% of our time indoors (Baker, 1998), and that indoor air may be up to five times more contaminated than outdoor air (CANDO, 1999). The tendency of certain buildings, particularly energy-efficient, controlled-climate buildings, to elicit various negative health effects (including headaches, fatigue, and severe respiratory problems) in their occupants is known as the SBS (WHO, 1998). The indoor environments influence multiple aspects of our health at the faculties, and the author believe that it is in the faculties best interests to directly address SBS concerns on computer labs, as they affect the well-being of students, staffs, and faculties alike.

The main aim of this dissertation is to identify the existence of SBS in computer lab building and determine whether it is in serious condition or not. There were two research methods used in conducting the dissertation: questionnaire survey forms and record of lighting level (illuminance) reading.

These two approaches were selected to provide a holistic approach to the issue of SBS. Distribution of questionnaire survey forms, were conducted early on in the research process. Faculty of Architecture, Planning and Surveying (FSPU), Faculty of Information Technology and Quantitative Science (FTMSK) and Tunku Abdul Razak 4 Library (PTAR 4) were selected to be the focus buildings of this study as a result of extensive survey process.

Increasing numbers of people having headaches and allergic-like reactions to unspecified stimuli and some of the reactions included lethargy, fatigue, headache, dizziness, nausea, irritation of mucous membranes, eye and nasopharyngeal irritation, and sensitivity to odors. Through exploration over several years, these reactions were linked to common symptoms of people in specific buildings and a lack of symptoms when these people were not in the buildings. This spectrum of specific and non-specific complaints, when tied to a particular building, became known as the SBS.

The author hopes this dissertation will give sufficient knowledge to readers about the syndrome so that could help them reduce the impact of this sometimes-devastating disease. If it does achieve this aim, in whatever degree, the author shall be more than pleased.