

**A STUDY ON THE POWER QUALITY OF ELECTRICAL
POWER SYSTEM AT UITM PENANG**



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ABSTRACT

Power Quality in general is the concept of powering and grounding sensitive (electronic) equipments in a manner that is suitable for the reliable operation of that equipment. Power quality relates to the equipment's immunity levels when faced with power disturbances such as voltage transients, variations, imbalances, fluctuations and waveform distortions. Damage to electrical equipments can occur when faced with the above mentioned power disturbances.

For this research, Universiti Teknologi MARA Penang was selected as the research area to find out if the electrical power supplied to the electrical equipments allows for the satisfactory operation of the electrical equipments. The study will try to find out the reasons for damage to the electrical equipments and to recommend the power conditioning devices to eliminate damages to the electrical equipments. Power quality monitoring was carried out using the Reliable Power Meters (RPM) at the main switchboards of all the UiTM existing buildings and analyzed using the RPM software. The analyzed power quality data findings was summarized to recommend the power conditioning devices to improve the power supplied to the electrical loads of the UiTM Pulau Pinang buildings. Finally a clearly, well documented report of the monitoring, analyzed data and the summarized findings was prepared.

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