

**POWER QUALITY MONITORING OF POWER PROBLEM DUE
TO THE NON-LINEAR LOADS AT PTAR 1**

Project report presented in partial fulfillment for the award of the
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ABSTRACT

This project is mainly explained of how well predictive maintenance can be used to prevent and avoid power problems in electrical systems due to the non-linear loads. It also gives a general outline of the analysis methods for harmonics and present results obtained from field measurement. It also focused on the effects of high content of harmonic, overload and loose connection in the distribution systems that cause power quality problems.

This project report is summarizes some of the results of survey and monitoring of quality of electricity supply conducted at Perpustakaan Tun Abdul Razak 1 (PTAR 1), MARA University Technology (UiTM) Using Reliable Power Meter (RPM).

The aim of this project is to understand the available theory and correlation with the actual cases referring the power quality disturbances at the PTAR 1. The survey and monitoring were performed at incoming point power supply of the Main SwitchBoard (MSB). Data analysis of voltage and current events was monitored using RPM hardware and software.

High harmonic content, neutral overload and failure to the operation of the equipment, and for future concerns are discussed together with the recommended solutions. Mitigation of harmonics until meets the IEEE standards also discussed above.

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