MODELING OF THE THREE PHASE DISTRIBUTION INDUSTRIAL NETWORK USING MATLAB/SIMULINK

This Project Report is presented in partial fulfillment for the award of the Bachelor of Electrical Engineering (Hons.)

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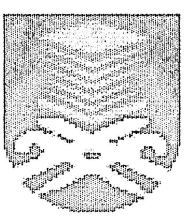

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ABSTRACT

Harmonic distortion is not a new phenomenon. Concern over harmonic distortion emerged during the early history of ac power systems. Widespread applications of power electronic-based loads continue to increase concerns oner harmonic distortion. Harmonic problems have sparked research that has led to much of the present-day understanding of power quality problems.

This thesis illustrates the use of the Power System Blockset (PSB), dedicated to the simulation of power systems harmonics using the Matlab Simulator (SIMULINK). The PSB was used in modeling the distribution system components, power electronics devices and drives. In this work it is proposed to design of the three phase industrial network for power quality and harmonic analysis, whereby focused on the point of common coupling (PCC). In this work it is proposed to investigate on current and voltage distortion characteristic at PCC, which measurement taken in various load connected. The Total Harmonic Distortion (THD) measurement collected from the harmonic data analysis.

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