SIMULATION OF A SINGLE-PHASE ACTIVE FILTER TO CONTROL HARMONICS FOR MULTIPLE NON-LINEAR LOADS

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

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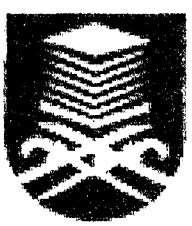

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ABSTRACT

As the presence of harmonics can create problems, reducing and controlling the harmonics become a widespread concern for most of industries (companies). This thesis proposes an active power filter for single-phase system to control the harmonics for multiple non-linear loads.

The active power filter is based on a single-phase inverter with four controllable switches (that is IGBT ~ Insulated Gate Bipolar Transistor), a standard H-bridge inverter.

The simulation of the proposed circuit is also presented in this thesis together with the results.

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