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A Microcontroller-Based Emergency Uninterrupted Power Inverter

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By

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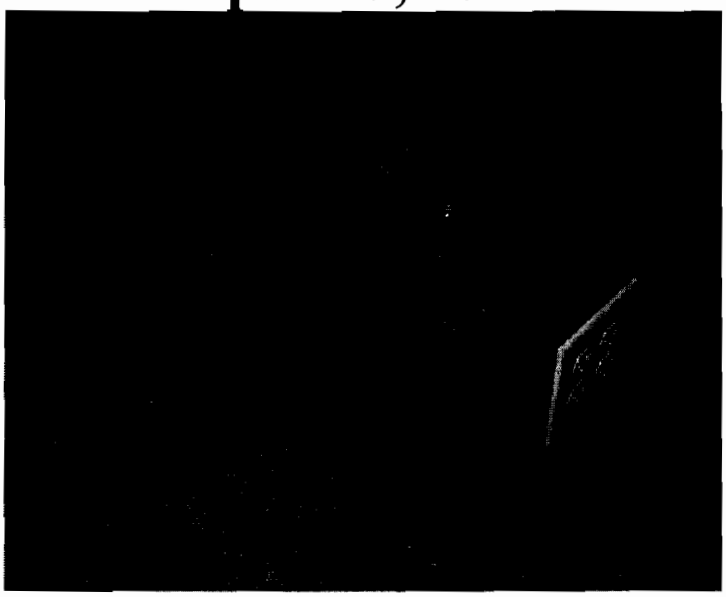

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ABSTRACT

The purpose of this report is to examine the requirements of an uninterrupted power supply which will be used to provide backup power for 120 Volt, 60 hertz AC systems. The device is designed to detect a loss of power and then provide a backup supply of power from a DC to AC power inverter. A microchip will be used for waveform timing, pulse-width adjustment and error control for the circuit. The microchip will control and adjust the input sent to the power MOSFETS, which feed into the step-up transformers. A push-pull configuration will be used to control each half cycle of the input waveform. The output will be monitored by the microchip for self adjustment.

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