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A Microcontroller-Based Emergency Uninterrupted Power Inverter

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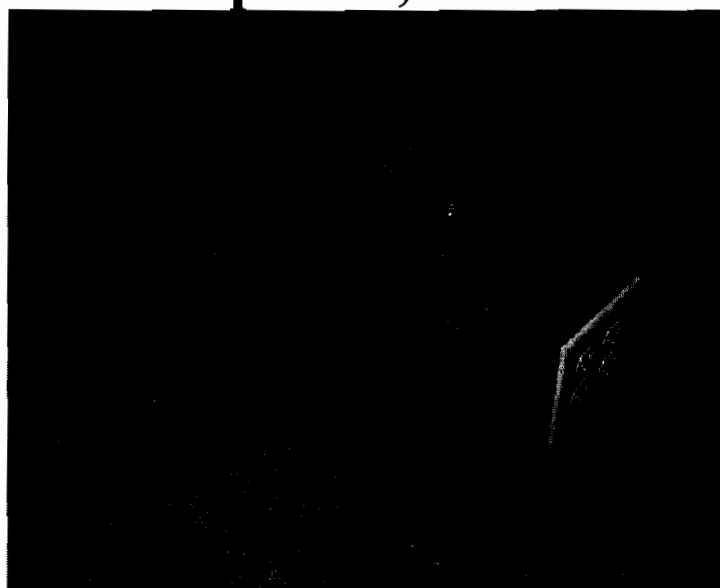
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A Microcontroller-Based Emergency Uninterrupted Power Inverter

By

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April 25, 2007



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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.

TABLE OF CONTENTS

ABSTRACT.....	ii
PREFACE.....	viii
LIST OF ILLUSTRATIONS.....	vi
I. INTRODUCTION.....	1
Problem Topic.....	1
Background.....	2
Criteria and Parameters.....	4
Methodology.....	5
Primary Purpose.....	5
Overview.....	6
II. DESIGN OF THE POWER INVERTER.....	7
Power Transformer Schematic Diagram.....	7
Overview of Design.....	9
III. CIRCUIT DESIGN.....	11
Power Inverter Circuit.....	11
Reference Voltage Circuit.....	12
Uninterrupted Power Circuit.....	13
IV. PIC PROGRAM ANALYSIS.....	15
Code Summary.....	15
PIC Program Flowchart.....	18

V.	COMPONENTS.....	19
	Input Batteries.....	19
	PIC Microprocessor.....	19
	AC Step-Up Transformer.....	21
	Analog-to-Digital Converter.....	21
	Power MOSFET.....	22
	Relays.....	23
	12 Volt DC Transformer.....	24
	9 Volt AC Transformer.....	24
	Voltage Regulator.....	24
	Other Components.....	25
	Summary of Components.....	25
VI.	RESULTS OF TESTING.....	26
	Recorded Testing Values.....	26
VII.	RISK MATRIX OF PROJECT.....	27
	Risk Assessment.....	27
	Probability/Impact Risk Matrix.....	29
VIII.	SCHEDULE.....	30
	Schedule for Phase 2.....	30
	Gantt Chart.....	32
IX.	TASK DOCUMENTATION.....	33
X.	CONCLUSION AND FUTURE CONSIDERATIONS.....	36
	Project Requirements.....	36

LIST OF ILLUSTRATIONS

<u>Figure</u>	<u>Page Number</u>
1. Basic Block Diagram for the Circuit.....	7
2. DC to AC Power Inverter Schematic.....	8
3. Control Circuit Schematic Diagram.....	9
4. DC to AC Power Inverter Schematic with Output.....	11
5. Backup Power Inverter Test Circuit with Output.....	12
6. Voltage Regulator Schematic Circuit Test.....	13
7. Uninterrupted Supply Schematic.....	14
8. Screenshot of Time Delay in Program.....	16
9. PIC Program Flowchart.....	18
10. PIC16F877 Pin Out Schematic.....	20
11. Transformer 3D Schematic.....	21
12. IRLi2203 Photo of MOSFET Packaging.....	22
13. Photo of Relay Schematic.....	23
14. LM 7805 Voltage Regulator Pin Out.....	24