

# **H5-BRIDGE INVERTER TOPOLOGY**

Thesis presented in partial fulfillment for the award of the  
Bachelor of Electrical Engineering (Hons.)  
UNIVERSITI TEKNOLOGI MARA (UiTM)



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**JANUARY 2015**

## **ACKNOWLEDGEMENT**

First of all, I would like to state my highest gratitude to God that gives me a chance to complete my final year project and thesis. Moreover, I would like to show my deep sense of gratitude and appreciation to my project supervisor, Prof. Madya Dr. Ahmad Maliki for the consistent help and guidance as well as provision of his valuable time, encourage and patient in finishing this project. Without he continued support and interest, this project report would not have been the same as presented here.

Thanks once again also goes to Prof. Madya Dr. Ahmad Maliki for helping me in understanding more on PIC programming and other topics related to it.

Last but not least, my sincere appreciation also extends to all students under supervision of Prof. Madya Dr. Ahmad Maliki, housemates at UiTM and others who have provided assistance at various occasions. Their views, comments and tips are very helpful. Finally, I am also very grateful to all my family members for their continuous encouragement and support.

Thank you.

## **ABSTRACT**

This project focuses on DC to AC power inverters, which aim to efficiently transform a DC power source to AC source, similar to power that would be available at an electrical wall outlet. Inverters are used for many applications, as in situations where low voltage DC sources such as batteries, solar panels or fuel cells must be converted to AC to drive AC load. Prior to circuit construction, the circuit was simulated using PSIM simulation software. Various circuit characteristic was investigated such as waveform generation and harmonics generation. The microcontroller was used to generate control signal for the Pulse Width Modulation (PWM) techniques for full bridge inverter application. The coding was developed using mikroBasic PRO for PIC. This eliminated the need for large analog components which often have a tendency to become unstable. The simulation results obtained was validated experimentally and show good agreement.

# TABLE OF CONTENTS

	<b>Page</b>
<b>APPROVAL</b>	i
<b>DECLARATION</b>	ii
<b>ACKNOWLEDGEMENT</b>	iii
<b>ABSTRACT</b>	iv
<b>TABLE OF CONTENTS</b>	v
<b>LIST OF FIGURES</b>	vii
<b>LIST OF TABLES</b>	viii
<b>LIST OF ABBREVIATIONS</b>	ix
<b>CHAPTER 1: INTRODUCTION</b>	1
1.1    INTRODUCTION	1
1.2    PROBLEM STATEMENT	3
1.3    OBJECTIVE OF PROJECT	4
1.4    SCOPE OF WORK	4
1.5    THESIS ORGANIZATION	5
<b>CHAPTER 2: LITERATURE REVIEW</b>	6
2.1    INTRODUCTION	6
2.2    POWER ELECTRONICS	7
2.3    H4 (H-BRIDGE) TOPOLOGY WITH BIPOLAR MODULATION	8
2.4    H5-BRIDGE	8
2.5    H5-BRIDGE OPERATION	9
2.6    EMI FILTER IN PV INVERTER	11
2.6.1    EMI PV FILTER	11
2.6.2    EMI LINE FILTER	12
2.6.3    ALTERNATIVE AND EFFECTIVITY OF EMI FILTER	13
2.6.4    PARASITIC ELEMENT OF EMI FILTER	15
2.7    EFFICIENCY ANALYSIS OF SINGLE-PHASE PHOTOVOLTAIC TRANSFORMER-LESS INVERTERS	17
2.7.1    EUROPEAN EFFICIENCY	18

<b>CHAPTER 3: METHODOLOGY</b>	19
3.1 INTRODUCTION	19
3.2 OVERVIEW ON PSIM SIMULATION	19
3.3 FLOWCHART OF WORK OF THE PROJECT	22
3.4 PSIM SIMULATION TROUBLESHOOT	24
3.5 PIC16F83A PROGRAMMING	27
3.6 OPTICALLY COUPLER HCPL-4100	27
3.7 INSULATED GATE BIPOLAR TRANSISTOR	28
3.8 LOW PASS FILTER	31
<b>CHAPTER 4: RESULT AND DISCUSSION</b>	32
4.1 INTRODUCTION	32
4.2 CHARACTERISTIC OF POWER SWITCHING	32
4.2.1 OUTPUT FROM IGBT SWITCH ON AND OFF	33
4.2.2 OUTPUT FROM IGBT FIFTH SWITCH	34
4.2.3 OUTPUT FROM VOLTAGE LOAD	35
4.2.4 OUTPUT FROM CURRENT LOAD	36
4.2.5 TOTAL HARMONICS DISTORTION	37
<b>CHAPTER 5: CONCLUSION AND FUTURE DEVELOPMENT</b>	38
5.1 Conclusion	38
5.2 Future Development	39
<b>REFERENCES</b>	40
<b>APPENDICES</b>	41
Appendix A	42
Appendix B	43
Appendix C	44