

## Table of Contents

<b>Experiment #0</b>	PC Hardware and Operating System .....	2
<b>Experiment #1</b>	Introduction to Debug and Turbo Debugger .....	7
<b>Experiment #2</b>	Addressing modes and data transfer instructions.....	15
<b>Experiment #3</b>	Arithmetic instructions .....	23
<b>Experiment #4</b>	Shift and rotate instructions.....	27
<b>Experiment #5</b>	Using BIOS Services and DOS functions Part 1: Text-based Graphics .....	35
<b>Experiment #6</b>	Using BIOS Services and DOS functions Part 2: Pixel-based Graphics .....	45
<b>Experiment #7</b>	Introduction to Flight86 Microprocessor Trainer and Application Board .....	52
<b>Experiment #8</b>	Flight86 Application I – Traffic Lights .....	63
<b>Experiment #9</b>	Flight86 Application II – Motor Control .....	69
<b>Experiment #10</b>	Introduction to the 8051 Microcontroller .....	78
<b>Appendix A – 8051 Instruction Set</b>	.....	92
<b>Appendix B – 8051 Special Function Registers</b>	.....	97
<b>Appendix C - An Introduction to WinLV</b>	.....	98