

Table of Contents:

Page	Section
i	Letter of Transmittal
ii	Title Page
iii	Declaration Page
iv	Table of Contents
v	List of Figures
vi	List of Tables
1	Acknowledgements
2	Abstract
3	Introduction
4-10	System Design
11-14	Background Theory
15	Conclusions
16	References
17	Bibliography
18-29	Full electrical drawings
30-34	Panel layouts
35-39	Pin designations
40-41	BOM
42	Block Diagram
43-54	Program flowcharts
55-78	Full program listing

List of Figures:

Figure 5-1: Schematic of Cell voltage sensors using Instrumentation Amplifiers and Voltage Dividers

Figure 8-1: Battery pack schematic

Figure 9-1: Simplified schematic of an INA126P Instrumentation Amplifier package

Figure 10-1: Simple schematic of a linear op-amp buffer

Figure 10-2: Schematic of a linear op-amp/transistor power amplifier/buffer

Figure 11-1: Schematic of a voltage divider

List of Tables

Table 12-1: Nextion HMI commands used in the program