CONTENTS

	PAGE
Acknowledgment Abstract	i ii
Contents	ii
List of Figures	V
List of Tables	vii
List of Plates	vii
Acronyms	ix
Chapter 1: Purpose and Organisation	1
1.1 Introduction	1
1.2 Objectives	3
1.3 Theoretical Background	5
1.4 Scope	7
1.5 Limitation	8
Chapter 2: Boundary Layer and Physical Basic of its Climates	9
2.1 Introduction to Boundary Layer	9
2.2 Surface forcing and Surface Flux of Boundary Layer	11
2.3 Energy Exchange in a Volume.	12
2.4 Sub-surface Climates	13
2.5 Lower Atmospheric Climate	17
Chapter 3: Review of Previous Method of Estimation and Calculation of Land surface Evaporation	on 29
Chapter 4: Principles of Eddy Correlation Technique and Radiation Budget at the Surface	42
4.1 Principles of Eddy Correlation	42
4.2 Radiation Budget Method	45

Chapter 5	: Instrumentation and Measurement	5
5.1	Automatic Weather Station	5
5.2	Siting Characteristic and Scope of Study	52
	Experimental Arrangement	53
5.4	Signal Analysis Software DADISP (Data Analysis	
	Digital Signal Processing)	5
	The Calculation of Latent Heat and Sensible Heat	59
5.6	The Calculation of Soil Heat Flux	6
Chapter 6	: Results	62
	Global Radiation and Net Radiation	62
6.2	Soil Temperature, Surface Temperature and	
	Ground Heat Flux	79
	Surface Wind	90
6.4	Sensible Heat Flux and Latent Heat Flux	96
	From Eddy Correlation Technique	105
6.5	Estimation of Latent Heat From Eddy Correlation	10.
	and Energy Balance Equation	11
6.6	The variation of Surface Energy Budget in Response to the Daily Weather Condition	11
	Obtained by Eddy Correlation Technique	
	Obtained by Eddy Correlation Technique	
Chapter 7	: Discussion and Conclusion	116
Bibliography		12

Appendices