

TABLE OF CONTENTS

TABLE OF CONTENTS

CHAPTER NO.	TITLE	PAGE NO.
	ABSTRACT	ii
	LIST OF TABLES	iii
	LIST OF FIGURES	iv
1	INTRODUCTION	1
2	LITERATURE REVIEW	3
2.1	GROUND-BASED LIDAR FOR ATMOSPHERIC WAVE STUDIES	4
2.2	GRAVITY WAVES FROM CONVECTIVE SOURCES	4
2.3	SIGNAL PROCESSING AND SPECTRAL METHODS	4
2.4	LIDAR STUDIES IN THE INDIAN REGION	4
2.5	LIMITATIONS AND GAPS	5
3	RESEARCH OBJECTIVES AND SCOPE	6
4	METHODOLOGY	8
4.1	FLOW CHART	9
4.2	DATASET DESCRIPTION	9
4.3	DATA PREPROCESSING AND CLEANING	10
4.4	RANGE-TIME INTENSITY PLOT GENERATION	10
4.5	TIME SERIES & SPECTRAL ANALYSIS (FFT)	11
4.6	FFT RESULTS ACROSS ALTITUDES	12
5	SYSTEM SPECIFICATION	13
5.1	HARDWARE SPECIFICATION	14
5.2	SOFTWARE SPECIFICATION	14
6	RESULT & IMPLEMENTATION	15
7	DISCUSSION, OBSERVATIONS AND INTERPRETATIONS	27
8	CONCLUSION & FUTURE SCOPE	32
9	REFERENCE	34