CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF PLATES

CHAPTER I GENERAL INTRODUCTION OF THE STUDY AREA.

1.1 Introduction 1

1.2 Regional geology of the study area. 10

1.3 Location of the study area. 17

1.4 Accessibility 24

1.5 Climate and rainfall 25

1.6 Geomorphology 25

1.7 Drainage 26

1.8 Present study 28

1.9 Methodology 30

CHAPTER II GEOLOGY OF THE AREA INVESTIGATED.

2.1 Geological setting of the study area. 31

2.2 Charnockite 37

2.3 Pyroxene granulite 44

2.4 Pink granulite 51

2.5 Banded Iron formation. (BIF) 54
2.6 Garnetiferous Quratz feldspathic cordiertite-sillimanite-biotite gneiss (Khondalite)

2.7 Norite

2.8 Gabbro

2.9 Peninsular gneissic complex (PGC)

2.10 Basic Intrusive

2.11 Dolerite Dyke

2.12 Alkali Syenite

2.13 Fenitized gneiss

2.14 Lamprophyre

2.15 Diatreme breccia.

CHAPTER III STRUCTURE AND TECTONICS OF THE STUDY AREA

3.1 Introduction

3.2 Folds

3.3 Joints

3.4 Faults

3.5 Regional tectono stratigraphy: geological history and age relationship.

CHAPTER IV GEOCHEMISTRY

4.1 Introduction

4.2 Elemental distribution pattern.

4.3 Major and minor elements geochemistry.

4.4 Trace and REE
4.5 Geochemistry of Lamprophyre and syenite.

CHAPTER V TECTONISM

5.1 Tectonic history of granulite terrane
5.2 Tectonic setting.
5.3 Geophysical evidence.

CHAPTER VI EVOLUTIONARY HISTORY OF THE STUDY AREA

6.1 Introduction
6.2 Evolutionary model for the study area.
6.3 Geochemical evidence.
6.4 Tectonic models for the study area.

CHAPTER VII SUMMARY AND CONCLUSION

BIBLIOGRAPHY