# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>CONTENTS</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abstract</td>
<td>i</td>
</tr>
<tr>
<td>Acknowledgement</td>
<td>ii</td>
</tr>
<tr>
<td>Table of Contents</td>
<td>iii</td>
</tr>
<tr>
<td>List of Table/Figures</td>
<td>vi</td>
</tr>
<tr>
<td>List of Abbreviations</td>
<td>x</td>
</tr>
<tr>
<td>List of Appendices</td>
<td>xi</td>
</tr>
</tbody>
</table>

## CHAPTER 1 INTRODUCTION

1.1. Foreword  
1.2. Energy and World Economy  
1.3. Energy and the Environment  
1.4. Objectives and Scope of Study
CHAPTER 2 LITERATURE REVIEW  

2.1. Fossil Fuels  

2.2. Air Pollution by Fossil Fuels  

2.3. Environmental Impacts of Sulphur Oxides  

2.4. Studies on the Emissions of Sulphur Oxides  

2.5. The Scenario in Asia  

2.6. Emissions of Sulphur Oxides in Asia  

2.7. Emission Sources of Sulphur Oxides in Asia  

Chapter 3 METHODOLOGY  

3.1. Foreword  

3.2. Research Design  

3.3. Discussion on Energy - Socio-Economy  

3.4. Data Source of Energy Consumption and Emissions of SOx  

3.5. Data Analysis  

3.6. Limitations and Difficulties
Chapter 4  DATA ANALYSIS AND DISCUSSION  43

4.1.  Energy Analysis  43

4.2.  Emissions of Sulphur Oxides  57

4.2.1.  Preliminary Analysis
- comparison between two sets of data  57

4.2.2.  Analysis of Fuel Type and Sectoral Contribution
to the Consumption of Primary Energy and
Associated $SO_x$  58

4.2.3.  Linear Regressions of $SO_x$ Emissions and
Primary Energy Consumption  64

4.2.4.  Analysis of Variance (ANOVA) for the
Emissions of $SO_x$  67

4.2.5.  Average Annual Growth Rate of Significant
Contributors of $SO_x$  70

Chapter 5  CONCLUSION AND RECOMMENDATIONS  74

5.1.  Foreword  74

5.2.  Conclusion: Summary of Results and Findings  75

5.3.  Recommendations  77

5.3.1.  Clean Technology
- Fuel Processing and Desulphurisation  79

5.3.2.  Fuel Switching to Cleaner Fuel Types
- Renewable Energy  82

5.3.3.  Energy Efficiency and Energy Intensity  84

5.3.4.  Regulatory and Monitoring Framework  87

BIBLIOGRAPHY

APPENDICES  

v