PREFACE

Speech synthesis has wide applications in almost all fields. Speech synthesis is extensively used in artificial intelligence in computers, computer networks, robotics, telecommunication, Educational aids, etc. Because of limited vocabulary of speech processors, speech analysis/synthesis method comes in to the practical. It is straight forward to generate a speech by speech processors. But speech analysis/synthesis is a difficult task. The updating of vocabulary can be made large by forming a new speech data of various sounds and connecting a external ROM to the speech processor. In this dissertation an attempt is made to analyze the speech waveform of various sounds such as 'one' 'on"e' 'o' 'u'.

In first chapter review of early attempts in speech analysis/synthesis, applications are given. This is followed by orientation of the problem. Theory of speech synthesis is stated at the end of this chapter

Methods of analysis/synthesis, block diagrams, frequency analysis of signals, computation DFT has been explained in the second chapter.

In the third chapter details of SPO-256 speech processor, hardware implementation, software implementation, TBA 810 amplifier, circuit diagram for speech synthesis, etc. have been given.

A speech waveform analysis methods, spike analysis, spike graphs, amplitude vs time graph are given in the fourth chapter.

Summary and conclusions are included in the fifth chapter. A list of references is given at the end of each chapter.