**Papers in Speech Communication: Speech Processing**
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## TABLE OF CONTENTS

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## Preface

Over the past few decades there has been great progress in understanding the nature of human speech production and perception, and in applying this knowledge to problems of speech processing (coding, recognition, and synthesis). Given the interdisciplinary nature of the enterprise, important papers in these areas have appeared in a wide range of journals, proceedings, and books from such diverse fields as engineering, linguistics, physics, psychology, and speech and hearing science. The current volume forms part of a three-volume series whose purpose is to bring together a number of these important papers. The series is sponsored by the Acoustical Society of America and, following the classification system of the Society's journal, one volume focuses on speech production, one on speech perception, and one on speech processing.

The idea of the three-volume series originated within the Speech Technical Committee of the Society. The Committee discussed and enthusiastically endorsed the project at the Society's fall 1989 meeting in St. Louis, Missouri, and subsequently chose the editors and editorial boards. A formal proposal for the project was then drafted by the Chair of the Speech Technical Committee and was forwarded to the Executive Council of the Society. The Council gave final approval for the project at the Society's spring 1990 meeting in State College, Pennsylvania.

We have organized each of the three volumes into topical sections, with the papers within each section ordered alphabetically by author. To help guide readers–especially students and nonexperts–we have written editorial commentary for each section. The commentary is intended to provide a brief context for the individual papers, placing them within the history of the discipline. We have also included a topical subject index at the end of each volume, keyed to individual papers. Finally, because the three volumes are so closely interrelated, at the end of each volume we have included the table of contents and the index of each of the other two volumes.

We have worked closely with our editorial boards in selecting the papers that appear in these volumes. The members of the boards were involved in all stages of the selection process, from the initial generation of a list of potential papers to the final decisions on selection. In making the selections, we were guided by the goal of including papers that are important in their own right and, in addition, collectively reflect progress in the field and present a range of viewpoints, approaches, an methodologies. Given the vast literature on speech, and practical constraints on the size of the volumes, the choices were difficult, and many important papers are not included. We can only hope that the volumes, as constituted, will prove useful to the speech community as research on speech communication proceeds.

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