

Journal of Rehabilitation Research and Development Vol. 30, No. 1 1993

CONTENTS

- iv A Message from the Secretary

 Jesse Brown, Secretary of DVA
- vii Editorial

 John W. Goldschmidt, MD
- viii To the Readership

 Tamara T. Sowell, Editor
- ix Guest Editorial
 Harry Levitt, PhD

- x Preface
 Allen E. Boysen, PhD
- xi Guide to the Issue Harry Levitt, PhD
- xv Summary of Scientific/Technical Papers in This Issue Harry Levitt, PhD

Scientific/Technical Articles

Section I. Digital Techniques in Acoustic Amplification

- 1 Achieving prescribed gain/frequency responses with advances in hearing aid technology Carol A. Sammeth, PhD; David A. Preves, PhD; Gene W. Bratt, PhD; Barbara F. Peek, PhD; Fred H. Bess, PhD
- 8 Properties of an adaptive feedback equalization algorithm
 A. Maynard Engebretson, DSc; Marilyn French-St. George, PhD
- 17 Behavioral assessment of adaptive feedback equalization in a digital hearing aid Marilyn French-St. George, PhD; Douglas J. Wood, MS;
 A. Maynard Engebretson, DSc
- 26 Intelligibility of frequency-lowered speech produced by a channel vocoder Miles P. Posen, MS; Charlotte M. Reed, PhD; Louis D. Braida, PhD
- 39 Toward a theory of optimal hearing aid processing James M. Kates, PhD

Section II. New Methods in Noise Reduction

- 49 Spectral contrast enhancement of speech in noise for listeners with sensorineural hearing impairment: Effects on intelligibility, quality, and response times *Thomas Baer, PhD; Brian C.J. Moore, PhD; Stuart Gatehouse, PhD*
- 73 Development and assessment of two fixed-array microphones for use with hearing aids

 Prof. Dr. Frans A. Bilsen; Dr. Wim Soede; Prof. Dr. Augustinus J. Berkhout

Journal of Rehabilitation Research and Development Vol. 30 No. 1 1993

82 Real-time multiband dynamic compression and noise reduction for binaural hearing aids

Birger Kollmeier; Jürgen Peissig; Volker Hohmann

Section III. Digital Techniques Applied to Related Areas

- 95 Digital signal processing (DSP) applications for multiband loudness correction digital hearing aids and cochlear implants Norbert Dillier, PhD; Thomas Frölich, DiplIngETH; Martin Kompis, DiplIngETH; Hans Bögli, DiplIngETH; Waikong K. Lai, PhD
- 110 Design and evaluation of a continuous interleaved sampling (CIS) processing strategy for multichannel cochlear implants
 Blake S. Wilson, PhD; Charles C. Finley, PhD; Dewey T. Lawson, PhD;
 Robert D. Wolford, MS; Mariangeli Zerbi, MSEE
- 117 Effects of noise and noise reduction processing on the operation of the Nucleus-22 cochlear implant processor
 Mark R. Weiss, MSEE
- 129 Measurements of acoustic impedance at the input to the occluded ear canal Vernon D. Larson, PhD; John A. Nelson, MAud; William A. Cooper, Jr., PhD; David P. Egolf, PhD

Clinical Report

137 Efficiency of Dynamic Elastic Response Prosthetic Feet Jacquelin Perry, MD and Stewart Shanfield, MD

Departments

- 144 Abstracts of Recent Literature Joan E. Edelstein, MA, PT
- 152 Book Reviews

 Jerome D. Schein, PhD and Corwin Boake, PhD
- 154 Publications of Interest
- 170 Calendar of Events
- 173 Index to JRRD Vol. 29 (1992)
- 182 Letters to the Editor