

CONTENTS

Foreword	ix
----------------	----

SIGNAL PROCESSING: PART II

I – CONTROL THEORY

Sensitivity minimization and bitangential Nevanlinna-pick interpolation in contour integral form	3
<i>Joseph A. Ball, Israel Gohberg and Leiba Rodman</i>	
Uniform bounded input-bounded output stabilization of nonlinear systems	37
<i>Christopher I. Byrnes and Alberto Isidori</i>	
Operator theoretic methods in the control of distributed and nonlinear systems	51
<i>Ciprian Foias and Allen Tannenbaum</i>	
Snippets of \mathcal{H}_∞ control theory	79
<i>Bruce Francis</i>	
Nongaussian linear filtering, identification of linear systems, and the symplectic group	99
<i>Michiel Hazewinkel</i>	
Approximation of Hankel operators: truncation error in an H^∞ design method	115
<i>J.W. Helton and N.J. Young</i>	
Nonlinear controller design via approximate normal forms	139
<i>Arthur J. Krener</i>	
Feedback with delays: Stabilization of linear time-delay and two-dimensional systems	155
<i>E. Bruce Lee and Wu-Sheng Lu</i>	
Control structure selection: Issues and a new methodology	195
<i>Manfred Morari and Jay H. Lee</i>	

II – APPLICATIONS OF SIGNAL PROCESSING

Tomography in radar	223
<i>Marvin Bernfeld</i>	
Local and global tomography	241
<i>A. Faridani, F. Keinert, F. Natterer, E.L. Ritman and K.T. Smith</i>	
The phase problem of X-Ray crystallography	257
<i>Herbert Hauptman</i>	
Inversion of the X-ray transform from data in a limited angular range	275
<i>Steven H. Izen</i>	
The eikonal approximation in ultrasound computer tomography	285
<i>Alfred K. Louis</i>	
Radar signal choice and processing for a dense target environment	293
<i>Harold Naparst</i>	
Basic algorithms in tomography	321
<i>Frank Natterer and A. Faridani</i>	
High resolution radar imaging using spectrum estimation methods	335
<i>Joseph A. O'Sullivan and Donald L. Snyder</i>	
Limited data tomography in non-destructive evaluation	347
<i>Eric Todd Quinto</i>	
Speech recognition based on pattern recognition approaches	355
<i>Lawrence R. Rabiner</i>	
ESPRIT - estimation of signal parameters via rotational invariance techniques	369
<i>R. Roy and T. Kailath</i>	