

Techniques in  
Applied  
Mathematics



Narosa

Editors

U. Basu • B.N. Mandal

# Contents

<i>Preface</i>	<i>v</i>
<b>Graceful Embedding of a Signed Graph</b> <i>Mukti Acharya</i>	1
<b>Lie Algebra—A Pedestrian's View</b> <i>B. Bagchi</i>	6
<b>Singular Integral Equations and Their Applications in Boundary Value Problem of Mathematical Physics</b> <i>A. Chakrabarti</i>	16
<b>Discrete Dynamical System: Difference Equation Modelling with Applications</b> <i>C.G. Chakrabarti</i>	50
<b>Graph-theoretic Approach in Operations Research</b> <i>P.K. Chaudhuri</i>	61
<b>Differential Equations</b> <i>K.P. Das</i>	67
<b>Calculus of Variations</b> <i>A.S. Gupta</i>	87
<b>Dynamical System</b> <i>M.R. Gupta</i>	100
<b>Integral Transform</b> <i>B.N. Mandal</i>	132
<b>On the Computation of Friction Factor in Turbulent Pipe Flow</b> <i>H.P. Mazumdar</i>	155
<b>On an Exact Method of Solving Integral Equation in Elliptic Region</b> <i>A. Roy</i>	166
<b>Lie Algebra</b> <i>A. Roy Chowdhury</i>	171
<b>Solitons and Inverse Scattering Method</b> <i>Rajkumar Roychoudhury</i>	176
<b>Local and Nonlocal Symmetries of Partial Differential Equations</b> <i>R. Sahadevan</i>	189
<b>Computational Methods for Free-surface Ship Hydrodynamics Problems</b> <i>Debabrata Sen</i>	206
<b>Minimization of Functionals and Numerical Solutions</b> <i>Rabindranath Sen</i>	240