

# Contents

|          |   |            |
|----------|---|------------|
| <b>1</b> | <b>Propagation of Water Waves in the Presence of Thin Vertical Barrier on the Bottom Undulation . . . . .</b> | <b>1</b>   |
|          | A. Choudhary and S. C. Martha   |            |
| <b>2</b> | <b>Cryptanalysis of Multilanguage Encryption Techniques . . . . .</b>   | <b>13</b>  |
|          | Prasanna Raghaw Mishra, Indivar Gupta and Navneet Gaba  |            |
| <b>3</b> | <b>Signcryption with Delayed Identification . . . . .</b>   | <b>23</b>  |
|          | Angsuman Das and Avishek Adhikari   |            |
| <b>4</b> | <b>HDNM8: A Round-8 High Diffusion Block Cipher with Nonlinear Mixing Function . . . . .</b>                  | <b>41</b>  |
|          | Jaydeb Bhaumik and Dipanwita Roy Chowdhury  |            |
| <b>5</b> | <b>Frames and Erasures . . . . .</b>  | <b>57</b>  |
|          | Saliha Pehlivan   |            |
| <b>6</b> | <b>Semi-inner Product: Application to Frame Theory and Numerical Range of Operators. . . . .</b>              | <b>77</b>  |
|          | N. K. Sahu and C. Nahak   |            |
| <b>7</b> | <b>Multi-level Nonlinear Programming Problem with Some Multi-choice Parameter . . . . .</b>                   | <b>91</b>  |
|          | Avik Pradhan and M. P. Biswal   |            |
| <b>8</b> | <b>A New Class of Rational Cubic Fractal Splines for Univariate Interpolation . . . . .</b>                   | <b>103</b> |
|          | P. Viswanathan and A. K. B. Chand   |            |
| <b>9</b> | <b>Applications of Compressive Sensing to Surveillance Problems . . . . .</b>                                 | <b>121</b> |
|          | Christopher Huff and Ram N. Mohapatra   |            |

|           |   |            |
|-----------|---|------------|
| <b>10</b> | <b>Region of Variability for Some Subclasses of Univalent Functions . . . . .</b>   | <b>151</b> |
|           | A. Vasudevarao  |            |
| <b>11</b> | <b>Ideal Cone: A New Method to Generate Complete Pareto Set of Multi-criteria Optimization Problems . . . . .</b>                             | <b>171</b> |
|           | Debdas Ghosh and Debjani Chakraborty  |            |
| <b>12</b> | <b>Fractional Programming Problem with Bounded Parameters. . . . .</b>  | <b>191</b> |
|           | A. K. Bhurjee and G. Panda  |            |
| <b>13</b> | <b>Approximation Properties of Linear Positive Operators with the Help of Biorthogonal Polynomials . . . . .</b>                              | <b>201</b> |
|           | G. Icoz   |            |
| <b>14</b> | <b>Similarity-Based Reasoning Fuzzy Systems and Universal Approximation . . . . .</b>   | <b>215</b> |
|           | Sayantan Mandal and Balasubramaniam Jayaram   |            |
| <b>15</b> | <b>Similarity Measure of Intuitionistic Fuzzy Numbers by the Centroid Point . . . . .</b>   | <b>231</b> |
|           | Satyajit Das and Debashree Guha   |            |
| <b>16</b> | <b>Classification Rules for Exponential Populations Under Order Restrictions on Parameters . . . . .</b>                                      | <b>243</b> |
|           | Nabakumar Jana, Somesh Kumar and Neeraj Misra   |            |
| <b>17</b> | <b>Solving the Exterior Bernoulli Problem Using the Shape Derivative Approach. . . . .</b>  | <b>251</b> |
|           | Jerico B. Bacani and Gunther Peichl   |            |
| <b>18</b> | <b>Applications of the Hausdorff Measure of Noncompactness on the Space <math>l_p(r, s, t; B^{(m)}), 1 \leq p &lt; \infty</math>. . . . .</b> | <b>271</b> |
|           | Amit Maji and P. D. Srivastava  |            |
| <b>19</b> | <b>Some Geometric Properties of Generalized Cesàro–Musielak–Orlicz Sequence Spaces . . . . .</b>  | <b>283</b> |
|           | Atanu Manna and P. D. Srivastava  |            |
| <b>20</b> | <b>Inverting the Transforms Arising in the GI/M/1 Risk Process Using Roots . . . . .</b>  | <b>297</b> |
|           | Gopinath Panda, A. D. Banik and M. L. Chaudhry  |            |

|  |            |
|--|------------|
| <b>21 On Quasi-ideals in Ternary Semirings. . . . .</b>                                    | <b>313</b> |
| Manish Kant Dubey and Anuradha   |            |
| <b>22 Epidemiological Models: A Study of Two Retroviruses,<br/>HIV and HTLV-I. . . . .</b> | <b>323</b> |
| Dana Baxley, N. K. Sahu and Ram N. Mohapatra   |            |

Mathematics and Computing 2013

International Conference in Haldia, India

Mohapatra, R.N.; Giri, D.; Saxena, P.K.; Srivastava, P.D.

(Eds.)

2014, XXV, 352 p. 81 illus., Hardcover

ISBN: 978-81-322-1951-4