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Collana	Springer Proceedings in Mathematics & Statistics, , 2194-1009 ; ; 139
Disciplina	004.0151
Soggetti	Computer science—Mathematics Computer mathematics Mathematical models Algebra Mathematical optimization Probabilities Mathematical Applications in Computer Science Mathematical Modeling and Industrial Mathematics Optimization Probability Theory and Stochastic Processes
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references at the end of each chapters.
Nota di contenuto	Chapter 1. Integral Representations Related to Complex Partial Differential Operators -- Chapter 2. Higher Order Hybrid Invexity Frameworks and Discrete Multiobjective Fractional Programming Problems -- Chapter 3. A Study of Generalized Invex Functions on Riemannian Manifold -- Chapter 4. Second order symmetric duality and variational problems.- Chapter 5. Efficient portfolio for interval Sharpe ratio model -- Chapter 6. On solvability for certain functional equations arising in dynamic programming -- Chapter 7. CASca: A CA Based Scalable Stream Cipher -- Chapter 8. Improved Cryptographic Puzzle Based on Modular Exponentiation -- Chapter 9. Computationally Secure Robust Multi-Secret Sharing for General Access Structure -- Chapter 10. Key-Chain-Based Key Pre-Distribution Protocols for Securing

Wireless Sensor Networks -- Chapter 11. IMS mining: a tool for imaging mass spectrometry data biomarker selection and classification -- Chapter 12. Pal Interpolation of Integral Types -- Chapter 13. Positivity Preserving Rational Cubic Trigonometric Fractal Interpolation Functions -- Chapter 14. A Monotonic Rational Fractal Interpolation Surface and Its Analytical Properties -- Chapter 15. Towards a unified methodology for fractal extension of various shape preserving spline interpolants -- Chapter 16. Unistochastic Matrices and Related Problems -- Chapter 17. Film Story Structure and Shot Type Analysis using One-way ANOVA, Kruskal-Wallis Test, and Poisson Distribution Test -- Chapter 18. Characterization of total very excellent Trees -- Chapter 19. Quadratic Residue Cayley Graphs on Composite Modulus -- Chapter 20. A dynamic programming algorithm for solving bi-objective fuzzy knapsack problem -- Chapter 21. A fuzzy random periodic review inventory model involving controllable back-order rate and variable lead-time -- Chapter 22. Supplier Selection using Fuzzy Risk Analysis -- Chapter 23. The control for prey-predator system with time delay and refuge -- Chapter 24. Evaluation of Solving Time for Multivariate Quadratic Equation System using XL Algorithm over Small Finite Fields on GPU -- Chapter 25. Towards a unified methodology for fractal extension of various shape preserving spline interpolants -- Chapter 26. Covering Arrays of Strength Four and Software Testing -- Chapter 27. Amplitude Equation for a Nonlinear Three Dimensional Convective Flow in a Mushy Layer -- Chapter 28. Effect of variable bottom topography on water wave incident on a finite dock -- Chapter 29. Electrokinetic effects on solute mixing near a conducting obstacle within a micro channel -- Chapter 30. Distribution of Primitive Polynomials over GF (2) with Respect to their Weights -- Chapter 31. Medial Left Bipotent Seminear-rings -- Chapter 32. Sub central Automorphisms -- Chapter 33. On Symmetric Laplace integral of order  $n$  -- Chapter 34. A Sequence Space and Uniform  $(A, \rho)$  Statistical Convergence.

### Sommario/riassunto

This book discusses recent developments and contemporary research in mathematics, statistics and their applications in computing. All contributing authors are eminent academicians, scientists, researchers and scholars in their respective fields, hailing from around the world. This is the second conference on mathematics and computing organized at Haldia Institute of Technology, India. The conference has emerged as a powerful forum, offering researchers a venue to discuss, interact and collaborate, and stimulating the advancement of mathematics and its applications in computer science. The book will allow aspiring researchers to update their knowledge of cryptography, algebra, frame theory, optimizations, stochastic processes, compressive sensing, functional analysis, complex variables, etc. Educating future consumers, users, producers, developers and researchers in mathematics and computing is a challenging task and essential to the development of modern society. Hence, mathematics and its applications in computing are of vital importance to a broad range of communities, including mathematicians and computing professionals across different educational levels and disciplines. In current research, modeling and simulation, making decisions under uncertainty and pattern recognition have become very common. Professionals across different educational levels and disciplines need exposure to advances in mathematics and computing. In this context, this book presents research papers on applicable areas of current interest. It also includes papers in which experts summarize research findings, such as signal processing and analysis and low-rank-matrix approximation for solving large systems, which will emerge as powerful

tools for further research. These new advances and cutting-edge research in the fields of mathematics and their applications to computing are of paramount importance for young researchers.

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