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Collana	Industrial and Applied Mathematics, , 2364-6837
Disciplina	512.1
Soggetti	Applied mathematics Engineering mathematics Mathematical models Calculus of variations Fourier analysis Biomathematics Applications of Mathematics Mathematical Modeling and Industrial Mathematics Calculus of Variations and Optimal Control; Optimization Fourier Analysis Mathematical and Computational Biology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references at the end of each chapters.
Nota di contenuto	Chapter 1: Linear and Nonlinear Waves in Gas Dynamics -- Chapter 2: Nonlinear flows and optimality for functional inequalities: an Extended Abstract -- Chapter 3: What is a Frame? Theory and Applications of Frames -- Chapter 4: The challenging problem of industrial applications of multicore-generated iterates of nonlinear mappings -- Chapter 5: Challenges in optimal control problems for gas and fluid flow in networks of pipes and canals: From modeling to industrial applications -- Chapter 6: Imaging In Acute Ischemic Stroke and Stroke Outcome Prediction -- Chapter 7: Fourier transforms of multiplicative Convolutions -- Chapter 8: Tight Wavelet Frames with Matrix Dilations -- Chapter 9: First-Order and Second-Order Adjoint Methods for the

Inverse Problem of Identifying Nonlinear Parameters in PDEs -- Chapter 10: The Solution of the Hierarchy of Quantum Kinetic Equations with Delta Potential -- Chapter 11: 1-D Wavelet and Partial Correlation Application for MS Subgroup Classification -- Chapter 12: Numerical methods for non-linear system of hyperbolic equations arising in oil reservoir simulation -- Chapter 13: Construction and Properties of Haar-Vilenkin Wavelets -- Chapter 14: Footprint-based personal recognition using Dactyloscopy Technique -- Chapter 15: An iterative algorithm for a common solution of a split variational inclusion problem and fixed point problem for non-expansive semigroup mappings -- Chapter 16: The Impact of Vaccination to Control Human Papilloma Virus Dynamics -- Chapter 17: Novel Solution of Nonlinear Equations using Genetic Algorithm -- Chapter 18: An M/M/c/N Feedback Queuing Model with Reverse Balking and Reneging -- Chapter 19: Solution of fuzzy heat equation under fuzzified thermal diffusivity -- Chapter 20: Chaos in Nanofluidic Convection of CuO nanofluid -- Chapter 21: Study Of The Seasonal Variability Of Plankton And Forage Fish In Chilika Lagoon Using Npzf Model: A Case Study -- Chapter 22: Effect of Glycerol Kinetics and Mass Transfer during Enzymatic Biodiesel Production from Jatropha Oil -- Chapter 23: Role of Bio-pest control on Theta logistic populations: A case study on Jatropha curcus cultivation system -- Chapter 24: Dynamics Of SIRS Model With Single Time Delay -- Resume of Some Invited and Contributed talks.

Sommario/riassunto

The book discusses essential topics in industrial and applied mathematics such as image processing with a special focus on medical imaging, biometrics and tomography. Applications of mathematical concepts to areas like national security, homeland security and law enforcement, enterprise and e-government services, personal information and business transactions, and brain-like computers are also highlighted. These contributions – all prepared by respected academicians, scientists and researchers from across the globe – are based on papers presented at the international conference organized on the occasion of the Silver Jubilee of the Indian Society of Industrial and Applied Mathematics (ISIAM) held from 29 to 31 January 2016 at Sharda University, Greater Noida, India. The book will help young scientists and engineers grasp systematic developments in those areas of mathematics that are essential to properly understand challenging contemporary problems.
