Record Nr. UNINA9910299753803321 Computational Problems in Engineering [[electronic resource] /] / Titolo edited by Nikos Mastorakis, Valeri Mladenov Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2014 **ISBN** 3-319-03967-9 Edizione [1st ed. 2014.] 1 online resource (310 p.) Descrizione fisica Collana Lecture Notes in Electrical Engineering, , 1876-1100; ; 307 Disciplina 620.00151 Soggetti Applied mathematics **Engineering mathematics Physics** Numerical analysis Mathematical and Computational Engineering Mathematical Methods in Physics **Numeric Computing** Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Nota di bibliografia Includes bibliographical references at the end of each chapters. Nota di contenuto Noise Reduction at the Fan Outlet -- Performance Evaluation of Gibbs Sampling for Bayesian Extracting Sinusoids -- Controlling Chaotic Systems via Time-Delayed Control -- Analytical Results for a Small Multiple-Layer Parking System -- Three Dimensional Pulsatile Non-Newtonian Flow in a Stenotic Vessel -- A Polynomial Matrix Approach to the Descriptor Systems -- Analysis of the Electric Field Distribution in a Wire-Cylinder Electrode Configuration -- Oblique Newtonian Fluid Flow with Heat Transfer towards a Stretching Sheet -- Double Allee Effects on Prey in a Modified Rosenzweig-Macarthur Predator-Prev Model -- Buckling of Plates on Rotationally and Warping Restrained Supports. Sommario/riassunto This book provides readers with modern computational techniques for solving variety of problems from electrical, mechanical, civil and chemical engineering. Mathematical methods are presented in a unified

manner, so they can be applied consistently to problems in applied electromagnetics, strength of materials, fluid mechanics, heat and

mass transfer, environmental engineering, biomedical engineering, signal processing, automatic control and more. • Features contributions from distinguished researchers on significant aspects of current numerical methods and computational mathematics; • Presents actual results and innovative methods that provide numerical solutions, while minimizing computing times; • Includes new and advanced methods and modern variations of known techniques that can solve difficult scientific problems efficiently.