the contribution of metaheuristics frameworks in cognitive big data applications to solve optimization problems. Intelligent models explain different, feasible applications and case studies where cognitive computing can be successfully implemented in big data analytics using metaheuristics algorithms. Provides a snapshot of the latest advances in successful in a wide variety of problem settings in big data frameworks. Provides a unique opportunity to present the work on the state-of-the-art of metaheuristics approach in the area of big data processing developing automated and entice young people into this exciting research area with the aim to address successfully the challenging problems of high relevance that are still waiting for a satisfactory answer. Cognitive Big Data Intelligence with a Metaheuristic

approaches. A Text Mining Approach; Pattern Recognition through Bibliometric Analysis; Assessing an Organization's Readiness to Adopt Big Data; Machine Learning for Predicting Performance; Analyzing Online Reviews Using Text Mining; Context-Problem Network and Quantitative Method of Patent Analysis. Complementary social and technological factors including: Big Social Networks on Sustainable Economic Development; Business Intelligence. This publication is unique among a number of books on cyanobacteria because it focuses on the bioenergetics of these widespread organisms which are the evolutionary prerequisite for the development of all higher forms of life on our “blue” planet. The book primarily addresses questions of energy conversion by the fundamental bioenergetic processes: (oxygenic) photosynthesis, (aerobic) respiration, and (anaerobic) fermentation which uniquely occur together in these prokaryotic cells. Thermophilic cyanobacteria offer the most suitable material for high resolution structure analyses of Photosystem I and II and other electron transport complexes by X-ray crystallography (for example, at present the structure of Photosystem II at atomic resolution is only known for these organisms). These achievements during the last decade represent a milestone in our understanding of the complexes which are crucial for solar energy exploitation through photosynthetic water splitting. The present work represents an ambitious attempt to achieve the goal of a synopsis state-of-the-art picture by casting together the mosaics of detailed knowledge described by leading experts in the field. It contains 24 chapters written by 35 authors from Europe, USA, India and Japan. The book is aimed at reaching a broad audience ranging from students to experienced scientists. The editors wish all readers a pleasant and stimulating journey through the fascinating “world” of the bioenergetics of cyanobacteria and sincerely hope that this book will not only be of great value for the experts but also entice young people into this exciting research area with the aim to address successfully the challenging problems of high relevance that are still waiting for a satisfactory answer. Cognitive Big Data Intelligence with a Metaheuristic Approach presents an exact and compact organization of content relating to the latest metaheuristics methodologies based on new challenging big data application domains and cognitive computing. The combined model of cognitive big data intelligence with metaheuristics methods can be used to analyze emerging patterns, spot business opportunities, and take care of critical process-centric issues in real-time. Various real-time case studies and implemented works are discussed in this book for better understanding and additional clarity. This book presents an essential platform for the use of cognitive technology in the field of Data Science. It covers metaheuristic methodologies that can be successful in a wide variety of problem settings in big data frameworks. Provides a unique opportunity to present the work on the state-of-the-art of metaheuristics approach in the area of big data processing developing automated and intelligent models explains different, feasible applications and case studies where cognitive computing can be successfully implemented in big data analytics using metaheuristics algorithms. Provides a snapshot of the latest advances in the contribution of metaheuristics frameworks in cognitive big data applications to solve optimization problems.