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Nota di contenuto	Mathematical and Software for Building the Rating of the Largest IaaS Suppliers by the Threshold Aggregation Method -- Development and Software Implementation of the Design Documentation Verification Model Based on Association Rules -- The Theory of Corporate Information Systems -- Modeling the Dynamics of User`S Mood Based on the Fokker-Planck Equation and Changes in the Parameters of Network Graphs of Their Comments -- Algorithm for Selecting a Priority Task When Planning the Movement of an Autonomous Transport Platform -- Using an Information System for Distributing Orders at an Industrial Enterprise for Efficient Capacity Utilization -- Development of a Decision Support System for the Diagnosis of Clinical Diseases -- An Approach to Modeling the Interrelations Variability at Elements of Production Systems with a Variable Structure -- Monitoring of Parameters of Power Plants Based on Renewable Energy Sources --

Modern Methods of Searching for the Optimal Assessment of Product Quality.-A Way of Exploring the Real World Using Virtuality with the Example of Creating Animation in the Unity Environment -- Model for Determining the Cloud Computing Services Vulnerability Level -- Simplex Method of Realization of Optimization Problem of Linear Programming -- Mathematical Modeling of the Effect of Various Defects on the Parameters of Natural Vibrations of the Pipeline under Operating Conditions -- Analysis of various Aspects in Metals Creation with Given Microheterogeneity Degree -- Modeling of Integrated Internet of Things System on the Base of Semi-Markov Processes -- Modeling of the Heat and Mass Transfer Process in Assessing the Thermal Effect when Processing an Oil Well with a Hot Coolant through Hollow Rods -- A Method for Planning the Supply of Petroleum Products to Filling Stations Based on Multi-Agent Resource Conversion Processes -- Multi-Factorial Analysis of Environmental Safety and Optimization of Oily Waste Recycling System -- Research and Analysis of Computing ClusterConfiguration Management Systems -- The Possibility of Using the Any Logic Simulation System in the Study of Models of Embedded Reconfigurable Computing Systems Based on Queuing Theory -- Agent-Based Model Assessing the Quality of the Cyber-Physical System -- Mathematical Modeling and Research of Ways to Reduce the Load Factor of the 110/6 Kv Main Substation -- Digital Observer of Elastic Torque of Rolling Stand Two-Mass System.

Sommario/riassunto

This book reports on innovative research and developments in automation. Spanning a wide range of disciplines, including communication engineering, power engineering, control engineering, instrumentation, signal processing and cybersecurity, it focuses on methods and findings aimed at improving the control and monitoring of industrial and manufacturing processes as well as safety. Based on the International Russian Automation Conference, held on September 4–10, 2022, in Sochi, Russia, the book provides academics and professionals with a timely overview of and extensive information on the state of the art in the field of automation and control systems and fosters new ideas and collaborations between groups in different countries. .