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Collana	Advances in Intelligent Systems and Computing, , 2194-5357 ; ; 743
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Nota di contenuto	Additive Manufacturing – A New Challenge for Automation and Robotics -- Discrete transfer function models for non-integer order inertial system -- Fractional-Order PI controller with Anti-Windup compensation for first order delay system -- Real-time PLC implementations of Fractional Order operator -- Resource management system for HPC computing -- Autonomous stand for 3D printing and machine vision system -- Methods of automatic artifact removal in neurobiological signals -- Use of Electrooculography (EOG) and facial expressions as part of the brain-computer interface (BCI) for controlling an electric DC motor -- Temperature Forecasting for Energy Saving in Smart Buildings based on Fuzzy Cognitive Map -- Comparative analysis of MP-based solvers to optimize distribution problems in logistics -- Reachability and observability of the fractional linear systems with state and output feedbacks.
Sommario/riassunto	This book consists of papers presented at Automation 2018, an

international conference held in Warsaw from March 21 to 23, 2018. It discusses the radical technological changes occurring due to the INDUSTRY 4.0, with a focus on offering a better understanding of the Fourth Industrial Revolution. Each chapter presents a detailed analysis of interdisciplinary knowledge, numerical modeling and simulation as well as the application of cyber-physical systems, where information technology and physical devices create synergic systems leading to unprecedented efficiency. The theoretical results, practical solutions and guidelines presented are valuable for both researchers working in the area of engineering sciences and practitioners looking for solutions to industrial problems.
