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Sommario/riassunto	This book reports on innovative research and developments in automation. Spanning a wide range of disciplines, including communication engineering, control engineering, predictive engineering and machine learning, it focuses on methods and findings aimed at improving the control and monitoring of industrial and manufacturing processes as well as their reliability. Based on the 7th International Russian Automation Conference (RusAutoCon2024), held as a hybrid conference on September 8–14, 2024, in/from Sochi, Russia, this 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. It is also expected to foster new ideas and collaborations between groups in different countries.