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Titolo	Manufacturing Control of Textile Materials : Operational Computerized Non-contact Methods // by Valerii Zdorenko, Nataliia Zashchepkina, Sergiy Barylko, Artur Zaporozhets, Serhii Lisovets, Ihor Kiva
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Collana	Studies in Systems, Decision and Control, , 2198-4190 ; ; 460
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Soggetti	Engineering mathematics Engineering - Data processing Materials Industrial engineering Production engineering Mathematical and Computational Engineering Applications Materials Engineering Industrial and Production Engineering
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Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Analysis of the Current State of Methods and Means for Monitoring the Technological Parameters of Textile Materials -- Development of a Computerized Control System Structure and Study of Ultrasonic Wave Propagation in Various Textile Materials -- Research on the Interaction of Ultrasonic Waves with Various Textile Materials in the Process of Non-Contact Control -- Application of Non-Contact Methods to Control the Technological Parameters of Textile Materials in the Manufacturing Process -- Design of the Models and Methods of Constructing Computerized Control Systems of Technological Parameters of Textile Materials -- Development of Experimental Samples of Computerized Systems and Non-Contact Control over Technological Parameters of Textile Materials.
Sommario/riassunto	This book examines issues of improving the efficiency of the control

technological parameters of textile materials through with computerized systems with the application of non-contact methods as only they allow to react quickly to changes of technological parameters during production. The original models, algorithms, software and hardware of the developed system for the control technological parameters of textile materials are presented. Also, the book presents new methods for measuring the technological parameters of textile materials, which do not need require taking into account the constant readjustment of the system to controlled samples of materials with different structure and porosity. The developed model of the computerized system allows contactless control of basis weight and porosity of fabrics in the course of their production. This book contains six chapters, for researchers, engineers, as well as lecturers and postgraduates of higher education institutions dealing with ultrasonic control engineering equipment.
