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Soggetti	Control engineering Robotics Automation Agriculture Artificial intelligence Vehicles Control, Robotics, Automation Artificial Intelligence Vehicle Engineering
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Nota di contenuto	Towards a Realistic Simulation for Agricultural Robots -- Robotic Dairy Systems – Change in Management Paradigm -- Quantitative Analysis of Bacterial Genes Expression as Prognostic Markers of Metabolic Disorders with the Aim of the Dairy Cattle's Health Monitoring -- Development of Organic Milk Production in Russia: Preferred Regions from the Perspective of Sustainability -- Spatial Heterogeneity of Lithogenic Mosaic of Sod-Podzolic Soils of Chudskaya Lowland and Efficiency of Precision Fertilization System -- Profiling of Reindeer's Rumen Microbial Communities: Characteristics and Age-Related Analysis -- Results of Study of Brucella Circulating in Natural Center of Brucellosis of Reindeer on Taimyr -- Terminal RFLP and Quantitative

PCR Analysis to Determine the Poultry Microbiota and Gene Expression Changes while Using Probiotic Strains -- Managed Grain Production as an Element of Rational Nature Management, Ensuring the Production of Economically Valuable Grain with a Minimum Level of Hidden Damage -- The Effect of Laser Stimulation on the Yield and Quality of Oat Grain.

**Sommario/riassunto**

This book features selected papers presented at the First International Conference on Agriculture Digitalization and Organic Production (ADOP 2021), held in St. Petersburg, Russia, on June 07–09, 2021. The contributions, written by professionals, researchers and students, cover topics in the field of agriculture, biology, robotics, information technology and economics for solving urgent problems in digitalization of organic livestock and crop production. The conference is organized by the St. Petersburg Federal Research Center of the Russian Academy of Sciences (SPC RAS) and the Technische Universität Kaiserslautern. The book will be useful to researchers of interdisciplinary issues of digitalization and robotization of agricultural production, as well as farmers and commercial companies, which introduce new technologies in crop production and animal husbandry. The book also covers a range of issues related to scientific training of graduate students in the areas of "Mechatronics and robotics", "Control in technical systems" and "Technologies, means mechanization and energy equipment in rural, forestry and fisheries".