1. Record Nr. UNINA9910985653003321 Autore Gowrishankar S Titolo Data Science for Agricultural Innovation and Productivity Pubbl/distr/stampa Sharjah:,: Bentham Science Publishers,, 2024 ©2024 **ISBN** 9789815196177 9815196170 Edizione [1st ed.] Descrizione fisica 1 online resource (229 pages) **IbrahimHamidah** Altri autori (Persone) VeenaA Soggetti Agriculture - Data processing Precision farming Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto Cover -- Title -- Copyright -- End User License Agreement --Contents -- Foreword -- Preface -- List of Contributors -- Digital Twin for Smart Farming -- Galiveeti Poornima1,*, Deepak S. Sakkari1 and Sukruth Gowda M.A.1 -- INTRODUCTION -- TECHNOLOGIES USED IN SMART FARMING -- DEFINITION OF DIGITAL TWIN -- DIGITAL TWIN TYPOLOGY -- DIGITAL TWINS IN FARM MANAGEMENT -- APPLICATION OF DIGITAL TWINS IN SMART FARMING -- USE CASES -- CONCLUSION -- FUTURE SCOPE -- REFERENCES -- Deep Learning Models for Prediction of Disease in Lycopersicum -- Nakatha Arun Kumar1,* and Sathish S. Kumar2 -- INTRODUCTION -- RELATED WORK -- Pretrained Models -- VGGNet -- GoogleNet -- ResNet -- Inception --Methodology -- RESULTS -- CONCLUDING REMARKS -- REFERENCES --A Smart Hydroponics System for Sustainable Agriculture -- Supriya

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Sommario/riassunto

Data Science for Agricultural Innovation and Productivity explores the transformation of agriculture through data-driven practices. This comprehensive book delves into the intersection of data science and farming, offering insights into the potential of big data analytics, machine learning, and IoT integration. Readers will find a wide range of topics covered in 10 chapters, including smart farming, Al applications, hydroponics, and robotics. Expert contributors, including researchers, practitioners, and academics in the fields of data science and agriculture, share their knowledge to provide readers with up-to-date insights and practical applications. The interdisciplinary emphasis of the book gives a well-rounded view of the subject. With real-world examples and case studies, this book demonstrates how data science is being successfully applied in agriculture, inspiring readers to explore new possibilities and contribute to the ongoing transformation of the agricultural sector. Sustainability and future outlook are the key themes, as the book explores how data science can promote environmentally conscious agricultural practices while addressing global food security concerns. Key Features: Focus on data-driven agricultural practices Comprehensive coverage of modern farming topics with an interdisciplinary perspective Expert insights Sustainability and future outlook Highlights practical applications Data Science for Agricultural Innovation and Productivity is an essential resource for researchers, data scientists, farmers, agricultural technologists, students, educators, and anyone with an interest in the future of farming through data-driven agriculture. Readership Researchers, data scientists, farmers, agricultural technologists, students, educators, and general readers.