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Nota di contenuto	A Brief Review of Tools to Promote Transdisciplinary Collaboration for Addressing Climate Change Challenges in Agriculture by Model Coupling -- Machine Learning and Deep Learning in Agriculture – A review -- Need of orchestration platform to unlock the potential of remote sensing data -- An Algorithmic Framework for fusing images from satellites, Unmanned Aerial Vehicles (UAV), and Farm Internet of Things (IoT) Sensors -- Globally Scalable and Locally Adaptable Satellite Solutions for Agriculture -- A Theoretical Framework of Agricultural Knowledge Management Process in the Indian Agriculture Context -- Simple and innovative methods to estimate gross primary production and transpiration of crops: a review -- Role of Virtual Plants in Digital Agriculture -- Remote sensing for mango and rubber mapping and

characterisation for carbon stock estimation– Case study of Malihabad tahsil (UP) and West Tripura District, India -- Impact of Vegetation Indices on Wheat Yield Prediction using Spatio-Temporal Modeling -- Farm-wise estimation of crop water requirement of major crops using deep learning architecture -- Hyperspectral Remote Sensing for Agriculture Land Use and Land Cover Classification -- Computer Vision Approaches for Plant Phenotypic Parameter Determination.

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#### Sommario/riassunto

This book presents the latest findings in the areas of digital ecosystem for innovation in agriculture. The book is organized into two sections with thirteen chapters dealing with specialized areas. It provides the reader with an overview of the frameworks and technologies involved in the digitalization of agriculture, as well as the data processing methods, decision-making processes, and innovative services/applications for enabling digital transformations in agriculture. The chapters are written by experts sharing their experiences in lucid language through case studies, suitable illustrations, and tables. The contents have been designed to fulfill the needs of geospatial, data science, agricultural, and environmental sciences of universities, agricultural universities, technological universities, research institutes, and academic colleges worldwide. It helps the planners, policymakers, and extension scientists plan and sustainably manage agriculture and natural resources.

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