

1. Record Nr.	UNINA9910878992703321
Autore	Zhang Zhao
Titolo	Transforming Technologies in Smart Agriculture : New Applications During the Past Decade / / edited by Zhao Zhang, Yongxin Jiang, Chunhui Wen, Shuyuan Men, Yuan Zhang
Pubbl/distr/stampa	Singapore : , : Springer Nature Singapore : , : Imprint : Springer, , 2024
ISBN	981-9741-41-6
Edizione	[1st ed. 2024.]
Descrizione fisica	1 online resource (201 pages)
Collana	Smart Agriculture, , 2731-3484 ; ; 8
Altri autori (Persone)	JiangYongxin WenChunhui MenShuyuan ZhangYuan
Disciplina	629.8
Soggetti	Automatic control Robotics Automation Agriculture Image processing Machine learning Control, Robotics, Automation Image Processing Machine Learning
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Chapter 1 A Review of Field Plant Phenotyping Platform, Sensing and Navigation Technology -- Chapter 2 Precision Handling of Green Apples in Orchard Environments Using Computer Vision -- Chapter 3 Corn Diseased Leaf Segmentation under Different Illumination Conditions -- Chapter 4 Research on Field Cotton Yield Prediction System Based on Improved YOLOv5 Cotton Detection Model and Android Development -- Chapter 5 Automatic segmentation algorithm for wheat field images based on UAV -- Chapter 6 Aphid Detection Techniques: A State-of-Art Review -- Chapter 7 A Comprehensive Analysis of Different Object Detection Frameworks and Path

**Sommario/riassunto**

This book collects transforming technologies in smart agriculture and their applications during the past decade. It focuses on the latest sensing and automation technologies for field and specialty crop production, and provides a lot of innovative knowledge on imaging processing, AI algorithms, robotics, and their applications in agriculture. It provides undergraduate or graduate students take-away knowledge for unmanned agriculture production, including but not limited to, corn/wheat disease detection, cotton yield prediction, and apple detection. Furthermore, this book includes review reports on plant phenotyping sensing and automation technologies and techniques for aphid detection.