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Sommario/riassunto	The rapid development and growth of unmanned aerial vehicles (UAVs) as a remote sensing platform, as well as advances in the miniaturization of instrumentation and data systems, have resulted in an increasing uptake of this technology in the environmental and remote sensing science communities. Although tough regulations across the globe may still limit the broader use of UAVs, their use in precision agriculture, ecology, atmospheric research, disaster response biosecurity, ecological and reef monitoring, forestry, fire monitoring, quick response measurements for emergency disaster, Earth science research, volcanic gas sampling, monitoring of gas pipelines, mining plumes, humanitarian observations and biological/chemo-sensing tasks continues to increase. This book provides a forum for high-quality peer-reviewed papers that broaden the awareness and understanding of UAV developments, applications of UAVs for remote sensing, and associated developments in sensor technology, data processing and communications, and UAV system design and sensing capabilities. The book covers the following topics: - improvements in UAV sensor technology; - UAV sensor design; - descriptions of processing algorithms applied to UAV-based imagery datasets; - the use of optical, multi-spectral, hyperspectral, laser, and optical SAR

technologies onboard UAVs; - Artificial intelligence and data mining-based strategies from UAV-acquired datasets; - UAV onboard data storage, transmission, and retrieval; - multiple platform UAV, AUV, and ground robot networks; - UAV sensor applications including: precision agriculture, construction, mining, pest detection, forestry, wildlife tracking, atmosphere, wildfire monitoring and prevention, reef monitoring, Earth science research pollution monitoring, micro-climates, land use precision agriculture, ecology, atmospheric research, quick response measurements for emergency disaster.