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Sommario/riassunto

This book gives comprehensive insights into the application of AI, machine learning, and deep learning in developing efficient and optimal surveillance systems for both indoor and outdoor environments, addressing the evolving security challenges in public and private spaces. Mathematical Models Using Artificial Intelligence for Surveillance Systems aims to collect and publish basic principles, algorithms, protocols, developing trends, and security challenges and their solutions for various indoor and outdoor surveillance applications using artificial intelligence (AI). The book addresses how AI technologies such as machine learning (ML), deep learning (DL), sensors, and other wireless devices could play a vital role in assisting various security agencies. Security and safety are the major concerns for public and private places in every country. Some places need indoor surveillance, some need outdoor surveillance, and, in some places, both are needed. The goal of this book is to provide an efficient and optimal surveillance system using AI, ML, and DL-based image processing. The blend of machine vision technology and AI provides a more efficient surveillance system compared to traditional systems. Leading scholars and industry practitioners are expected to make significant contributions to the chapters. Their deep conversations and knowledge, which are based on references and research, will result in a wonderful book and a valuable source of information.