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Nota di contenuto	Cover -- Series Page -- Title Page -- Copyright Page -- Contents -- Preface -- Chapter 1 Elevating Surveillance Integrity-Mathematical Insights into Background Subtraction in Image Processing -- 1.1 Introduction -- 1.2 Background Subtraction -- 1.3 Mathematics Behind Background Subtraction -- 1.4 Gaussian Mixture Model -- 1.4.1 Gaussian Mixture Model (GMM) Algorithm for Background Subtraction -- 1.4.2 Gaussian Mixture Model (GMM) Algorithm - A Simple Example -- 1.5 Principal Component Analysis -- 1.6 Applications -- 1.6.1 Military Surveillance -- 1.6.2 Visual Observation of Animals in Forests -- 1.6.3 Marine Surveillance -- 1.6.4 Defense Surveillance Systems -- 1.7 Conclusion -- References -- Chapter 2 Machine Learning and Artificial Intelligence in the Detection of Moving Objects Using Image

Processing -- 2.1 Introduction -- 2.2 Moving Object Detection -- 2.3
Envisaging the Object Detection -- 2.3.1 Filtering Algorithm -- 2.3.2
Identification of Object Detection in Bad Weather Circumstance -- 2.3.3
Color Clustering -- 2.3.4 Dangerous Animal Detection -- 2.3.5 UAV
Video End-of-Line Detection and Tracking in Live Traffic -- 2.3.5.1
Contextual Detection -- 2.3.5.2 Calculation of Location of a Car --
2.3.6 Estimation of Crowd -- 2.3.7 Parking Lot Management -- 2.3.8
Public Automatic Anomaly Detection Systems -- 2.3.9 Modification of
Robust Principal Component Analysis -- 2.3.10 Logistics Automation
-- 2.3.11 Detection of Criminal Behavior in Humans -- 2.3.12 UAV
Collision Avoidance and Control System -- 2.3.13 An Overview of
Potato Growth Stages -- 2.4 Conclusion -- References -- Chapter 3
Machine Learning and Imaging-Based Vehicle Classification for Traffic
Monitoring Systems -- 3.1 Introduction -- 3.2 Methods -- 3.2.1 Data
Preparation -- 3.2.2 Model Training -- 3.2.3 Hardware and Software
Configuration -- 3.3 Result -- 3.4 Conclusion.
3.5 Limitations -- 3.6 Future Improvements -- References -- Further
Reading -- Chapter 4 AI-Based Surveillance Systems for Effective
Attendance Management: Challenges and Opportunities -- 4.1
Introduction -- 4.2 Artificial Intelligence (AI) and Smart Surveillance --
4.3 Artificial Intelligence (AI) and Attendance Management -- 4.4
Technologies in Automatic Attendance Management Image Processing
-- 4.5 Deep Learning and Various Neural Network Techniques for
Attendance Management -- 4.5.1 Applications of Convolutional Neural
Networks (CNN) for Attendance Management -- 4.5.1.1 Mathematical
Model of CNN -- 4.5.2 Applications of Recursive Neural Network (RNN)
for Attendance Management -- 4.5.2.1 Mathematical Model of RNN --
4.5.3 Applications of Generative Adversarial Network (GAN) for
Attendance Management -- 4.5.3.1 Mathematical Model of Generalized
Neural Network -- 4.6 Role of AI Technologies in Attendance
Management -- 4.7 Challenges -- 4.8 Opportunities -- 4.9 Discussion
& -- Conclusion -- References -- Chapter 5 Enhancing
Surveillance Systems through Mathematical Models and Artificial
Intelligence: An Image Processing Approach -- 5.1 Introduction --
5.1.1 Surveillance -- 5.1.1.1 Crime Prevention and Detection -- 5.1.1.2
Public Safety -- 5.1.1.3 Terrorism Prevention -- 5.1.1.4 Traffic
Management -- 5.1.1.5 Workplace Monitoring -- 5.1.1.6 Evidence
Collection -- 5.1.1.7 Emergency Response -- 5.1.1.8 National Security
-- 5.1.1.9 Public Health Monitoring -- 5.1.1.10 Accountability and
Transparency -- 5.1.2 Image Processing -- 5.1.2.1 Image Enhancement
-- 5.1.2.2 Image Restoration -- 5.1.2.3 Image Compression -- 5.1.2.4
Image Segmentation -- 5.1.2.5 Object Detection and Recognition --
5.1.2.6 Image Analysis and Measurement -- 5.1.2.7 Image Registration
-- 5.1.2.8 Image Classification and Machine Learning -- 5.1.2.9 Image
Synthesis and Manipulation.
5.1.2.10 Remote Sensing and Image Analysis -- 5.2 History of
Surveillance Systems -- 5.3 Literature Review -- 5.4 Mathematical
Models for Surveillance Systems -- 5.4.1 Overview of Mathematical
Modeling in Surveillance -- 5.4.2 Role of Probability and Statistics in
Surveillance -- 5.4.2.1 Anomaly Detection -- 5.4.2.2 Predictive
Analytics -- 5.4.2.3 Risk Assessment -- 5.4.2.4 Decision Support --
5.4.2.5 Data Fusion and Integration -- 5.4.3 Modeling Human Behavior
in Surveillance Scenario -- 5.4.3.1 Behavioral Patterns -- 5.4.3.2
Machine Learning -- 5.4.3.3 Social Dynamics -- 5.4.3.4 Continuous
Learning and Adaptation -- 5.4.3.5 Cognitive Modeling -- 5.4.4
Mathematical Modeling for Tracking and Motion Analysis -- 5.4.4.1
Object Tracking -- 5.4.4.2 Motion Prediction -- 5.4.4.3 Motion
Analysis -- 5.4.4.4 Motion Representation -- 5.4.4.5 Trajectory

Analysis -- 5.4.4.6 Data Fusion -- 5.4.4.7 Continuous Learning and Adaptation -- 5.5 Artificial Intelligence in Surveillance Systems -- 5.5.1 Object Recognition and Detection -- 5.5.2 Behavior Analysis -- 5.5.3 Facial Recognition -- 5.5.4 Video Analytics -- 5.5.5 Real-Time Alert Generation -- 5.5.6 Predictive Analytics -- 5.5.7 Data Management and Analytics -- 5.6 Use of Mathematical Models for Pre-Processing Image Data -- 5.6.1 Filtering and Smoothing -- 5.6.2 Image Enhancement -- 5.6.3 Edge Detection -- 5.6.4 Image Restoration -- 5.6.5 Feature Extraction -- 5.6.6 Dimensionality Reduction -- 5.7 Future Directions and Challenges -- 5.7.1 Deep Learning and Neural Networks -- 5.7.2 Real-Time Processing -- 5.7.3 Multi-Modal Data Fusion -- 5.7.4 Privacy-Preserving Techniques -- 5.7.5 Human-Centric Surveillance -- 5.7.6 Robustness to Adversarial Attacks -- 5.7.7 Interoperability and Scalability -- 5.7.8 Ethical and Legal Considerations -- 5.8 Conclusion -- 5.8.1 Summary of the Chapter.

5.8.2 Key Findings and Contributions -- 5.8.2.1 Integration of Mathematical Models -- 5.8.2.2 Application of Artificial Intelligence -- 5.8.2.3 Future Directions -- 5.8.2.4 Improved Security and Public Safety -- 5.8.2.5 Efficiency and Automation -- 5.8.3 Importance of Continued Research in Enhancing Surveillance Systems -- 5.8.3.1 Advancements in Technology -- 5.8.3.2 Addressing Complex Challenges -- 5.8.3.3 Improving Accuracy and Efficiency -- 5.8.3.4 Enhancing Threat Detection and Prevention -- 5.8.3.5 Real-World Application and Impact -- References -- Key Terms -- Chapter 6 A Study on Object Detection Using Artificial Intelligence and Image Processing-Based Methods -- 6.1 Introduction -- 6.2 Role of Artificial Intelligence in Image Analysis -- 6.2.1 Object Detection and Recognition -- 6.2.2 Image Segmentation -- 6.2.3 Medical Image Analysis -- 6.2.4 Virtual Reality (VR) and Augmented Reality (AR) -- 6.3 How Artificial Intelligence Can Enhance Traditional Image Processing Algorithms and Enable New Applications -- 6.3.1 Image Restoration -- 6.3.2 Super Resolution -- 6.3.3 Style Transfer -- 6.4 Benefits of Artificial Intelligence and Image Processing Methods -- 6.5 Ethical Considerations Associated with AI and Image Processing -- 6.5.1 Privacy and the Protection of Data -- 6.5.2 Bias and Discrimination Artificial Intelligence (AI) Algorithms -- 6.5.3 Informed Approval and Transparency -- 6.5.4 Deep Fakes and the Spread of Misinformation -- 6.5.5 Trust and Safety -- 6.5.6 Accountability and Responsibility -- 6.6 Conclusion -- References -- Chapter 7 Application of Fuzzy Approximation Method in Pattern Recognition Using Deep Learning Neural Networks and Artificial Intelligence for Surveillance -- 7.1 Introduction -- 7.2 Preliminaries -- 7.2.1 Neural Network -- 7.2.2 Pattern Recognition -- 7.2.3 Self-Organizing Maps (or Kohonen Maps). 7.2.4 Facial Recognition -- 7.2.5 Thumb Impression Recognition -- 7.3 Proposed Method -- 7.3.1 Mathematical Model: Pascal's Triangle Graded Mean Approach -- 7.3.2 Proposed Fuzzy Approximation Method (FAM) -- 7.3.3 Application of FAM in Facial Recognition -- 7.3.4 Application of FAM in Thumb Recognition -- 7.3.5 Proposed Algorithm and Coding -- 7.4 Experimental Analysis -- 7.5 Proposed Solution -- 7.6 Application Over Facial Recognition -- 7.7 Application of Thumb Impression Recognition -- 7.8 Advantages of the Proposed Method -- 7.9 Conclusion -- References -- Chapter 8 A Deep Learning System for Deep Surveillance -- 8.1 Introduction -- 8.2 Related Work -- 8.3 Method and Approach -- 8.3.1 Dataset Used -- 8.3.2 Mathematical Modelling -- 8.3.3 Frames Extraction and Object Detection -- 8.3.4 Image Pre-Processing -- 8.4 Model Implementations -- 8.4.1 SoftMax Regression -- 8.4.2 Support Vector Machine (SVM) -- 8.4.3 MatConvNet -- 8.4.4 CNN -- 8.4.5 Spatially-Sparse CNN -- 8.4.6

Implementation -- 8.5 Results and Comparative Analysis -- 8.6
Conclusions and Future Research Direction -- References -- Chapter 9
Study of Traditional, Artificial Intelligence and Machine Learning Based
Approaches for Moving Object Detection -- 9.1 Introduction -- 9.2
Literature Review -- 9.3 Approaches for MOD -- 9.3.1 Traditional
Approaches for MOD -- 9.3.1.1 Background Subtraction Methods --
9.3.1.2 Optical Flow-Based Techniques -- 9.3.1.3 Frame Differencing
and Morphological Operations -- 9.3.1.4 Challenges and Limitations --
9.3.2 ML Approaches for MOD -- 9.3.2.1 Supervised Learning for
Object Detection -- 9.3.2.2 Unsupervised Learning Approaches for
Anomaly Detection -- 9.3.2.3 Transfer Learning and Domain
Adaptation -- 9.3.2.4 Evaluation Metrics for ML-Based MOD -- 9.3.3 AI
Approaches in MOD -- 9.3.3.1 AI-Powered Object Tracking -- 9.3.3.2
Reinforcement Learning for MOD.
9.3.3.3 Generative Adversarial Networks in MOD.

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.
