

Applied Video Processing in Surveillance and Monitoring Systems

Part of the Advances in Multimedia and Interactive Technologies Book Series

Nilanjan Dey (Techno India College of Technology, Kolkata, India), Amira Ashour (Tanta University, Egypt) and Suvojit Acharjee (National Institute of Technology Agartala, India)

Description:

Video monitoring has become a vital aspect within the global society as it helps prevent crime, promote safety, and track daily activities such as traffic. As technology in the area continues to improve, it is necessary to evaluate how video is being processed to improve the quality of images.

Applied Video Processing in Surveillance and Monitoring Systems investigates emergent techniques in video and image processing by evaluating such topics as segmentation, noise elimination, encryption, and classification. Features real-time applications, empirical research, and vital frameworks within the field.

Readers:

This publication is a critical reference source for researchers, professionals, engineers, academicians, advanced-level students, and technology developers.

ISBN: 9781522510222

Release Date: November, 2016

Copyright: 2017

Pages: 313

Topics Covered:

- Automated Systems
- False Alarm Reduction
- Genetic Algorithms
- Image Segmentation
- Reconfigurable Architectures
- Remote Monitoring Systems
- Video Stenography

Hardcover +
Free E-Book:

E-Book Only:

\$215.00

\$215.00

Order Information

Phone: 717-533-8845 x100
Toll Free: 1-866-342-6657
Fax: 717-533-8661 or 717-533-7115
Online Bookstore: www.igi-global.com

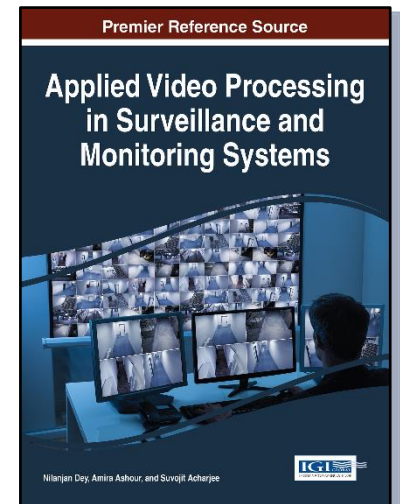


Table of Contents

Foreword

Preface

Acknowledgment

Section 1

Segmentation, Classification and Registration based Image/Video Processing

Chapter 1

Study of Various Image Segmentation Methodologies-An Overview

Abahan Sarkar, NIT Silchar, INDIA

Ram kumar, NIT Silchar, INDIA

Chapter 2

Measures of Image and Video Segmentation

Pushpajit A. Khaire, SRCOEM, Nagpur, INDIA

Roshan R. Kotkondawar, GCOE, Jalgaon, INDIA

Chapter 3

Automated System for Crops Recognition and Classification

Alaa M. AlShahrani, College of Computers and IT, Taif University, KSA

Manal A. Al-Abadi, College of Computers and IT, Taif University, KSA

Areej S. Al-Malki, College of Computers and IT, Taif University, KSA

Amira S. Ashour, Faculty of Engineering, Tanta University, EGYPT

Nilanjan Dey, Techno India College of Technology, INDIA

Chapter 4

Moving Object Classification in a Video Sequence

S Vasavi, VR Siddhartha Engineering College, INDIA

T Naga Jyothi, VR Siddhartha Engineering College, INDIA

V Srinivasa Rao, VRSEC, INDIA

Chapter 5

Image Registration Techniques and Frameworks: A Review

Sayan Chakraborty, Dept. of CSE, B.C.E.T, Durgapur, West Bengal, INDIA

Prasenjit Kumar Patra, Dept. of CSE, B.C.E.T, Durgapur, West Bengal, INDIA

Prasenjit Maji, Dept. of CSE, B.C.E.T, Durgapur, West Bengal, INDIA

Amira S. Ashour, Faculty of Engineering, Tanta University, EGYPT

Nilanjan Dey, Techno India College of Technology, INDIA

Section 2

Video Steganography

Chapter 6

An Overview of Steganography: "Hiding In Plain Sight"

Al Hussien Seddik Saad, Faculty of Science, Minia University, EGYPT

Abdelmgeid Amin Ali, Faculty of Science, Minia University, EGYPT

Chapter 7

Design of Reconfigurable Architectures for Steganography System

Sathish Shet, JSS Academy of Technological Education, INDIA

Aswath Aswath, Dayananda Sagar College of Engineering, INDIA

Hanumantha Raju, BMS Institute of Technology and Management, INDIA

Xia Gao, Aalto University School of Electrical Engineering, Finland

Section 3

Surveillance and Monitoring Systems

Chapter 8

Encoding Human Motion for Automated Activity Recognition in Surveillance Applications

Ammar Ladjailia, University of Souk Ahras, Algeria

Imed Bouchrika, University of Souk Ahras, Algeria

Nouzha Harrati, University of Souk Ahras, Algeria

Zohra Mahfouf, University of Souk Ahras, Algeria

Chapter 9

Object Based Surveillance Video Synopsis using Genetic Algorithm

Shefali Gandhi, Dharmsinh Desai University, INDIA

Tushar V. Ratanpara, Dharmsinh Desai University, INDIA

Chapter 10

Technical Evaluation, Development and Implementation of a Remote Monitoring System for a Golf Cart

Claudio Urrea, Universidad de Santiago de Chile, CHILE

Chapter 11

Intelligent Traffic Monitoring System through Auto and Manual Controlling using PC and Android Application

Satya Priya Biswas, Bengal College of Engineering and Technology, INDIA

Paromita Roy, Bengal College of Engineering and Technology, INDIA

Nivedita Patra, Bengal College of Engineering and Technology, INDIA

Amartya Mukherjee, Dept of ECE, IEM, Kolkata, INDIA

Amira S. Ashour, Faculty of Engineering, Tanta University, EGYPT

Nilanjan Dey, Techno India College of Technology, Kolkata, INDIA

Chapter 12

Reducing False Alarms in Vision Based Fire Detection

Neethidevan Veerapathiran, Mepco Schlenk Engineering College, INDIA

Anand S, Mepco Schlenk Engineering College, INDIA

Compilation of References

About the Contributors

Index

Nilanjan Dey, PhD., is an Asst. Professor in the Department of Information Technology in Techno India College of Technology, Rajarhat, Kolkata, India. He holds an honorary position of Visiting Scientist at Global Biomedical Technologies Inc., CA, USA and Research Scientist of Laboratory of Applied Mathematical Modeling in Human Physiology, Territorial Organization of Scientific and Engineering Unions, Bulgaria, Associate Researcher of Laboratoire RIADI, University of Manouba, Tunisia. He is the Editor-in-Chief of International Journal of Ambient Computing and Intelligence (IGI Global), US, International Journal of Synthetic Emotions (IJSE) and the International Journal of Rough Sets and Data Analysis (IGI Global), US, Series Editor of Advances in Geospatial Technologies (AGT) Book Series, (IGI Global), US, Executive Editor of International Journal of Image Mining (IJIM), Inderscience, Regional Editor-Asia of International Journal of Intelligent Engineering Informatics (IJIEI), Inderscience and Associated Editor of International Journal of Service Science, Management, Engineering, and Technology, IGI Global. His research interests include: Medical Imaging, Soft computing, Data mining, Machine learning, Rough set, Mathematical Modeling and Computer Simulation, Modeling of Biomedical Systems, Robotics and Systems, Information Hiding, Security, Computer Aided Diagnosis, Atherosclerosis. He has 8 books and 160 international conferences and journal papers. He is a life member of IE, UACEE, ISOC, etc.